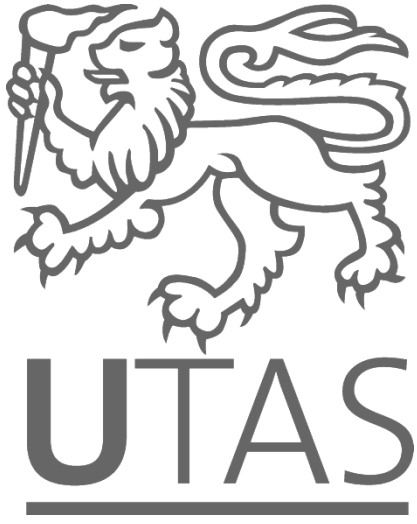

READING BEFORE SCHOOL

by

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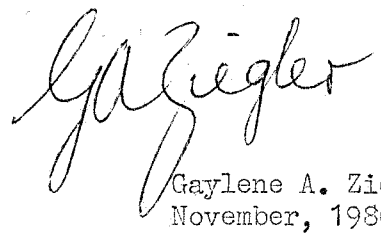
This dissertation contains no material which has been accepted for the award of any other degree or diploma in any University, and to the best of my knowledge contains no paraphrase or copy of material previously published or written by another person, except where due reference is made in the text of this dissertation.



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ABSTRACT

This paper examines documented studies of the early reader, the child who learns to read at home before entering formal schooling. The historical view of when reading instruction should commence is outlined, as well as the recent intensive studies of the early reader by Dolores Durkin and Margaret Clark. Predisposing factors in early literacy are extrapolated from research studies and several early readers were examined in local state schools to ascertain how closely these young children matched those in studies cited. This leads to a discussion of the relationship between studies of young fluent readers and recent reading acquisition theories, and how these relate to classroom practice.

CONTENTS

LIST OF TABLES

CHAPTER 1 : THE EMERGENCE OF READING

It is not surprising that the fundamental skill of reading has occupied such an enormous place in educational theory and research. As far as beginning reading is concerned, the landmark research was carried out in the early 1930's by Mabel Morphett and Carleton Washburne[1]. who established the mental age of 6.5 years they considered necessary before formal tuition in reading should commence. Since then studies on the subject of 'early reading' have taken many forms, methodology has varied and even the definition of early reader has not remained constant. The term 'early reading' has been used to mean preschool reading, kindergarten reading, beginning reading of any type and reading readiness. Clearly, each varies in its implications and issues. For the purposes of this paper, an early reader is defined as a child who learns to read before formal schooling has begun, and who has learned to read informally at home. While help may have been given with reading in the home, it was not of a formal programmed nature.

In an attempt to understand the process by which children learn to read, as opposed to the pros and cons of the methods by which they are taught, we must observe the learners themselves, how they try to master reading, the conditions facilitating their progress and the skills they achieve, Because procedures in the classroom situation are controlled, which ever theory of reading instruction adhered to strongly influences early learning strategies and patterns of early achievement, making it very difficult to make unbiased observations. For this reason, reading research literature is increasingly beginning to document studies of young children who have arrived at school reading fluently, with understanding and interest. These children have had little formal instruction; their progress has been voluntary and learning activities optional. Most have

had some kind of help in the way of usually mother or a sibling to answer questions and informally guide progress, though the motivation for learning appears to come almost invariably from within the child. This motivation sustains the young child over the two to three years it takes from the first interest in the "black squiggles" accompanying the picture to eventual fluency. It is hoped that available research on early readers will contribute valuable insights into the learning processes involved in beginning reading, and thereby aid the vast majority of young children who learn to read in the conventional school setting.

The importance of the home and the preschool years have featured increasingly in literature on the development of reading skills. Many researchers have become more interested in writing, seeing a possible link between reading and writing. In the last decade research has focused on learning processes involved in reading, as opposed to the earlier obsession with methods, particularly in connection with the young child who has learned to read easily and quickly, both in school and prior to contact with structured lessons. For many years it has been assumed that children will only commence learning to read and write when they reach school, and not before that time. Hand in hand with this "view" are teaching methods requiring drill, repetition and self-correction exercises. Many studying reading now believe that by the time children come to school they have acquired many of the basic skills of reading and writing, despite the fact that few have been 'taught' to read or write in any direct intentional way. Goodman[2], studying preschool children since the early 1970's, has found that preschoolers already understand a good deal about environmental print: the existence of the alphabet, that print in books and on objects conveys messages, where the story begins and which aspects of the print are significant for reading. These children have observed adults reading and writing and know that written language makes sense. Goodman sees them as

already predicting and confirming; and drawing on their own linguistic ability to utilize syntactic, semantic and graphophonic cues.

> "It slowly became obvious to me that children's discoveries about literacy in a literate society such as ours must begin much earlier than school age. Becoming increasingly aware of the significance of social context and with a developmental view of learning, I hypothesized that children develop notions about literacy in the same way that they develop other significant learnings : that is, children discover and invent literacy as they participate actively in a literate society." [3.]

Frank Smith, observing a three year old in a supermarket during the making of a television film on the topic of reading instruction, noticed the child correctly identifying words on several packages, but also saw that, more importantly,

> "he knew a good deal about what the print ought to say on a package label, which indicates how well he understood the function of print, and he could apply a probable meaning to a word long before he could recognize words on sight." [4.]

Smith concluded from these observations that children actually begin reading from the moment they become aware of print as meaningful in their environment.

Too often the highly structured programme adopted by the school in the name of reading teaching bears no relation to the attitudes and knowledge of print the child brings from home. The step by step mastery of skills often oversimplifies the complex process of reading, creating confusion in especially less able children who lose sight of the intrinsic purpose of print. It is reduced to a formidable array of vocabulary and skills to be learned, by the children who are least equipped to master them. Holdaway[5.] and Sulzby[6.] also view children's early reading/writing-like behaviours as true literacy skills, Sulzby using the notion of "emergent literacy". This is not a sign of readiness to 'begin' reading, but rather to progress further in a process they began several years earlier. Children from a home environment where language and reading is

valued enjoy the magic of books, they see the function of written language and use their knowledge of spoken language to assist them in the control of the written world.

This discussion will examine initially, in the next two chapters, the historical background to reading instruction, specifically referring to attitudes of when reading should begin and reasons for these views. This question of commencement of reading has been a subject of spasmodic research since the early 1900's, but it is only in the last twenty five years that larger and more intensive studies have been mounted to look at early readers themselves in an attempt to ascertain how and why they have outstripped their peers in grasping this fundamental skill. In an effort to draw up a complete picture of the young fluent reader, chapter four examines personal qualities and skills and home background experiences compiled of early readers in such large studies as those conducted by Dolores Durkin[7]. and Margaret Clark[8]. Chapter five outlines a study conducted as part of this research analysis, in which thirteen early readers were tested for reading ability and their parents interviewed regarding background experiences at home, to see how closely a local sample of pre-school readers would match research conclusions cited earlier. Recent theories of reading acquisition have been examined in chapter six, especially those attempting to explain the ability of three, four and five year old children to supposedly teach themselves a skill which dominates the first two years of formal schooling. The conclusion looks at the differences between home and school learning environments, and discusses the implications for the education system that some children are entering the system already fluent in reading, many surprisingly proficient in kindergarten. While this paper does not address the issue of when children 'should' learn to read directly, it does advocate a greater need for the present education system to firstly recognize the enormous contribution of

the home in the early education of the child, and then to take steps to capitalize more fully on the knowledge and skills the child brings to school.

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CHAPTER 2 : AN HISTORICAL PERSPECTIVE

Despite extensive studies of the reading process, especially in the second half of this century, there are still fundamental questions unanswered, especially about beginning reading. Present research, even on early readers, contains almost no information on how children read, for example, what intonation patterns are typical of the first stages. Also unclear is whether, and how much, they rely on phonics. What is their motivation for learning to read? Perhaps the most important question which has surfaced continually over the years is that of readiness. For many years the teaching of reading to very young children has been considered an undesirable practice. In parts of the United Kingdom reading begins at five; in Australia, West Germany, France, the United States and England, however, six years chronologically or six and a half years mentally has been the accepted age. In Scandinavian countries and in Russia reading is not introduced till the age of seven and sometimes later. When are children ready to begin instruction in reading? Early readers demonstrate it is possible to succeed at five or even four years of age, but does this mean that schools are waiting too long to begin? To put the present starting age in Australia into perspective, it is necessary to examine attitudes and studies in the past, which have had a crucial bearing on our acceptance of the arbitrary age of six years.

Twenty centuries ago Quintilian advocated seven years as the age for teaching of any kind, including reading, "...that being the earliest age at which they can derive profit from instruction."[1] The instruction at this early age was to include reading teaching and exercises in speech training, consisting of repetition of rhymes containing different combinations of sounds. Writing was also to be taught, the stylus following the outline of letters which had been engraved on a plate. This practice in fine

motor coordination was later revived in principle by Montessori. Plato disagreed with this early start to reading instruction, considering ten years as a much more appropriate age to commence, and envisaged it taking three or so years from then for proficiency to be gained in reading and writing.[2.]

As early as the 1600's there was considerable discussion of the matter of when a child is capable of learning to read, with the ages of five and even three to four years being put forward. Hoole, in 1660, expressed the view that "betwixt three and four years of age a child has a great propensity to peep into a book, and then is the most seasonable time ... for him to begin to learn".[3.] Rousseau would have none of this view for Emile:

> "Give your scholar no verbal lessons; he should be taught by experience alone. Reading is the curse of childhood .... When I thus get rid of children's lessons I get rid of the chief cause of their sorrow." 4.

He declared Emile would probably read and write before he was ten just because he, Rousseau, cared little whether he could do so by the time he was fifteen.[5.] He associated reading instruction with the treatment of very young children as if they were immature adults in the French infant schools of the early eighteenth century. Despite the pleas of Comenius for a whole word approach, the Alphabetic Method appears to have been the method most widely used.

> "The child was taught to recognize the letters and relate the alphabetic name to each. As each new word was met, the child read out the alphabetical names of each letter in turn and then said the word itself." 6.

It was thought that by this method the child would learn to read and spell at the same time.

At the turn of the nineteenth century Pestalozzi wrote

> "Not till after the foundation of human knowledge has been fairly laid and secure would I begin the dull abstract studying from books."[7.]

Nevertheless, the history of the development of universal education for all during the last one hundred and fifty years clearly shows its initial and main function as that of promoting universal literacy, with the establishment of the ability to read being of primary importance. Despite this conviction that reading was foremost in any education programme, only a privileged minority of children in the United Kingdom before 1870 was given the opportunity to learn to read either by literate parents, governesses and tutors in their homes or by teachers in fee paying schools. Friedrich Froebel, the founder of the Kindergarten in the mid 1800's, considered exposure to reading had no place in the child's early education.[8.]

When compulsory schooling was introduced in 1870, its prime purpose was to secure a minimum standard of literacy for all. Notwithstanding the theorised necessity for a literate population, public opinion was not convinced that the skill of reading should be exercised by all classes of citizen. Many regarded the promotion of universal literacy as a threat to the maintenance of the status quo.

> "An extension of the ability to read would make the humble poor too wise for their betters, and forgetful of their station." [9.]

Considering conditions in schools, with teachers coping with as many as one hundred pupils at a time, ranging from three to eleven years, and including handicapped children, it was not surprising that the vast proportion of them failed to learn to read effectively. Since schooling was provided, the fault must lie with the child, hence the hypothesis of "word blindness", due to defective brain development, was advanced publicly in 1896 by an English oculist.[10.] 'Word blindness' or 'specific developmental dyslexia' as it became known, was still being hotly debated in the United Kingdom in the mid 1960's and it wasn't until 1972 with the publication of <u>Children With Specific Reading Difficulties</u> by the U.K. Department of Education and Science that it was finally acknowledged that

'specific developmental dyslexia' was still an hypothesis as it was when Dr. Morgan described the case of "congenital word blindness".[11.]

Reading teaching at the turn of this century was still generally considered to mean mechanical recognition of words, inculcated through alphabetic and phonic methods. All new school entrants began the same formal reading instruction immediately upon entering school, with no consideration of their readiness for the task. Many in society at this time, however, were committed to seeing universal literacy adopted and achieved by all classes of citizen, many, including George III and Mrs Trimmer, urging 'safe reading' for the populace. Mrs Trimmer's tracts conveyed to the lower orders of the people many instructive lessons and pointed out to their superiors the correct way of treating them in order to correct many faults peculiar to their lowly status. Hannah More, however, felt that while brutal ignorance was cruel, a full literacy would be preposterous. She would allow no writing.[12.]

As people became more aware of the power which mastery of the printed word afforded, more attention was directed to individual differences in the rate children learned to read. The study of these differences was advanced by pioneer work in mental measurement. The first standardised test of reading attainment was published by Ballard in 1914.[13.] Several well known scholars in the early part of the twentieth century objected to the notion that entry to school automatically meant the beginning of reading instruction. Edward Huey, who published The Psychology and Pedagogy of Reading in 1908, quotes Dewey as recommending eight years as the best time to start reading, though Dewey is as much disturbed by inappropriate mechanical methods employed for teaching young children as he was by the age at which tuition began. Huey's comments on beginning reading, written in 1908, are as relevant today as they were when they were written:

> "The child makes endless questionings about the names of things, as every mother knows. He is concerned also about the printed notices, signs, titles, visiting cards, etc. that come his way,

> and should be told what these 'say' when he makes inquiry. It is surprising how large a stock of printed or written words a child will gradually come to recognize in this way." [14.]

Two other reasons Patrick (1899) claims, should also preclude children from the reading process until they are at least ten. They are the facts that young children are not mentally or ocularly capable of coping with learning to read. These claims have been reiterated many times this century in relation to reading, with conclusive evidence for either still elusive. Patrick expresses his view of a mental readiness or a 'ripening' thus:

> " We have thus seen that there are certain branches of instruction for which the mind of the child from five to ten has ripened, and which therefore may be taught most economically and safely during this period .... namely natural science, history and morals." [15.]

Hall's and Gesell's view of man, which stressed a predeterminate nature that unfolds in stages, parallels this view. Cognitive development had been described as 'ripening' as early as 1581 by Mulcaster,[16.] but not in the sense of 'readiness' for learning. As the legs ripen, so the child can be taught to walk. So here is a mental readiness for some things and unreadiness for others. This prevailing opinion caught the imagination of educational thinkers, though for many years it remained just that, an opinion. In the United States the maturational viewpoint was applied specifically to reading when Buswell (1922) [17.] found that the span of word recognition increased rapidly in the case of most pupils during the first four years. Hence if children are not given formal instruction in reading until they are ready, many of the problems of retardation in learning to read could be avoided. Some writers believed that time was the answer, rather than special drills or exercises. Others declared that with carefully graded exercises the child can be brought to a stage of readiness. It has taken fifty years for us to realize that the answers to beginning reading lie in neither of these directions.

From the 1930's onwards reading readiness featured constantly in the literature, especially as in the United States authorities became concerned at the large number of children repeating the first grade because they were unable to cope with reading. Two notable studies in the 1930's formed almost all the empirical evidence for the adoption of the concept of reading readiness this century. Written by Mabel Morphett and Carleton Washburne,[18.] the first report described the reading achievement of first grade children when one particular method was used in one particular school system (Winnetka, Illinois). Based on the children's achievement as it related to mental age, the authors concluded:

> "It seems safe to state that, by postponing the teaching of reading until children reach a mental age level of six and a half years, teachers can greatly decrease the chances of failure and discouragement and can correspondingly increase their efficiency." [19.]

Following publication of these findings schools were not only instrumental in delaying any reading instruction until the child reached the mental age of six and a half years, but children in many schools in the United States had to be six years old to enter Grade one. Despite the many methodological flaws in the study, Morphett and Washburne's conclusions were immediately taken up and quoted with uncritical enthusiasm, often being distorted and made more extreme in the process. Many critics of the study are bothered by the fact that the authors implied that at a certain point all children are ready to begin reading. They also assigned crucial importance to mental age. Whilst mental age and IQ scores are reasonably good predictors of success at either end of the spectrum, that is those at the top more likely to cope well with the reading task, with the reverse true for those at the lower end, unless one can determine how well a particular child performed on each test item and whether or not the test questions match the learning demands of the reading programmes being offered to the child, conclusions

can be risky. Most disturbing is the fact that Morphett and Washburne cited no other factors that may have contributed to the children's success or failure in beginning reading, such as motivation, socio-economic level, experiential background, class size, classroom atmosphere and teacher skill. The supposed uniformity among all children and their universal readiness for the same instruction method based on such a nebulous principle as a mental age of six and a half years is most disquieting to us today.

Knowing how influential and long lasting the mental age concept of readiness has been, it is difficult to understand why this one study became immediately applicable to almost all children in all schools, and lasted until the 1960's. The reasons are, firstly, it supported the notion of developmental stages already put forward; it honoured the new measurement and testing movement by being precise and objective. Carleton Washburne was also a very prominent superintendent of the Winnetka schools in Illinois. In addition it advocated postponement as most children entering school had not reached a mental age of six and a half years. This explained the large reading failure rate among children in first grade. So to a populace worried about damaging young eyes and rushing the developmental unfolding or ripening of the young child, it was accepted with relief. Although the mental age concept of readiness was widely accepted, a few objections were still raised. The most important came from Arthur Gates. Gates in 1937 showed that the mental age at which a given level of reading was achieved varied from five to seven years. This was across four classes, using different teaching methods and with differing numbers of pupils. He concluded that statements concerning a necessary mental age for reading were 'meaningless'.[20] He claimed through his extensive testing that far from being dependent entirely on the child himself, reading success is

in large measure determined by the nature of the reading programme.

However the concept of reading readiness retained its popularity, reinforced by the other major paper on the topic, "Phonic Readiness", published in 1937 by Dolch and Bloomster.[21] They concluded:

> "A mental age of seven years seems to be the lowest at which a child can be expected to use phonics."

That this viewpoint extended beyond the United States and was still influencing teachers is illustrated by this quote from Gardner (1967):

> "It is quite common for teachers of Infant classes to shun 'phonics'. The frequent assertion that 'children are not ready for phonics until they have a mental age of six and a half years' is the justification." [22]

It is clear from subsequent work that Dolch and Bloomster seriously underestimated the phonic ability of young children. The Roswell-Chall Auditory Blending Test was used to test phonic ability in young children by Chall, Roswell and Blumenthal in 1963,[23] testing first grade, primarily lower to lower-middle socio-economic children in New York. Firth (1972)[24] also administered it to average six year olds in Australia. In both studies children performed very well. Firth also gave six year olds a test of seventy two-letter or three-letter pronounceable non-words. After only a few months of reading tuition, mean score was 27/70 correct. Other researchers such as Read (1971),[25] Fox and Routh (1975),[26] Liberman et al (1977)[27] all demonstrate that preschoolers possess a surprising understanding of phonological constituents of speech, and how these can be represented in print by letter or letter cluster.

When it was agreed in the 1930's that most children entering first grade were unready to read and that postponing instruction would ensure their being ready later, a decision had to be made about what was to be done while the children were 'growing into reading'. Hence the readiness programme was introduced, particularly in the U.S., although what this

meant varied from school to school. The nature of the programmes differed with viewpoints on 'readiness'. Those who believed that readiness occurred automatically with the passing of time also believed that it was not necessary for readiness programmes to bear any relationship to the actual reading process. Others were convinced a refinement of vocabulary development and auditory and visual discrimination were precursors of success with a later reading programme. Reading readiness workbooks were widely used, and references to tests to assess readiness appeared in the literature as early as 1927 and 1929.[28] These readiness tests proliferated, in spite of the fact that researchers have questioned their predictive value almost from the time they came into existence.

One of the most influential educators of the early twentieth century, and one completely at variance with those who viewed early childhood as a time of social development, a waiting for the unfolding of mental capacities, was an Italian, Dr Maria Montessori. Montessori began work as a medical doctor with the insane, but soon set up schools for retarded children, who, at the time, were incarcerated with the insane. Her success with these children was so outstanding that it led her, in 1907, to establish the 'Casa dei Bambini' or Children's House for normal preschool children in a housing estate. Montessori identified a number of sensitive periods, times of predisposition to particular learnings in the child's mental development. Montessori described the role of educator as one, not of teaching, but of helping the children to educate themselves by providing an environment to match their needs. She deliberately exposed the young learners to an environment containing an array of programmed materials with which children could learn to read and write, largely by teaching themselves. Speaking of the results of her experiment in matching the environment to the young

learners' needs, she says:

> "In any case, almost all of the normal children treated with our method begin to read at four years, and at five know how to read and write, at least as well as children who have finished the first elementary." 29.

Nevertheless learning to read and write was far from the goals of the Montessori programme. These acquired skills were merely the result of a highly structured programme to teach young children independence, a strong will, persistence, reasoning, working always at their own pace and in an atmosphere of total freedom. She invented a rich array of educational toys, simple puzzles, buttoning and lacing frames as well as the famous sandpaper letters from which children learned the sounds of letters then moved to writing and finally to reading. Reading to Montessori required a much longer course of instruction and called for a higher level of intellectual development. Her influence spread widely in Europe and in the U.S. enthusiasm for the method peaked between 1913-1915. But, as McVicker Hunt outlines,[30.] her ideas ran headlong into several other trends such as the intelligence testing movement, with its views of a fixed intelligence; the psychoanalytic movement, stressing psychosexual rather than cognitive development and the proponents of Dewey, especially William Kilpatrick.

An important influence on early childhood education especially in Australia and New Zealand in the 1960's and 1970's was English educationalist, Fred Schonell. From his research, Schonell supported a mental age of between six and seven years before formal, systematic instruction in reading should commence.

> "It is imperative to consider our infant school pupils during their five to six stage as being fitted out experientially and emotionally for the more serious demands of the six to seven year period." 31.

Schonell believed that activities for the five to six year stages should aim at building up that necessary background of language experience,

while vocabulary extension and direct contact with word patterns, which would appear in reading materials, should arise from centres of interest of six to seven year old pupils.[32.]

He advocated testing young children for IQ's and mental age, these being guides of considerable value to the age at which formal reading lessons should be started, the amount of progress that should be expected from them and the nature of the reading material that should be used with them. In order to consider each pupil from an individual viewpoint, Schonell suggested using a guide such as a reading readiness chart. The chart he proposed listed the following items:[33.] mental level, reading readiness abilities (from observation and readiness tests), experiential background, extent and quality of play with other children, ability to listen to stories, attend to instructions, extent of vocabulary, attitudes towards print, social and emotional attitudes and physical development. Schonell omits any reference to cognitive abilities such as children's concepts and reasoning skills, which are of specific importance in the learning to read process. The impact of Schonell was still being felt in early childhood education in Australia in the early 1970's, and diagnostic testing frequently preceded any formal reading instruction.

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CHAPTER 3 : RECENT RETROSPECTIVE STUDIES

From 1957 - 1964 Professor Dolores Durkin[1]. conducted two studies, one in Oakland, California, the other in New York city. Impressed by the dearth of reliable and valid reports of preschool reading in the literature, Durkin set out to discover how much children had learned to read at home before entering school, whether the earlier start in reading affected future achievement, and the factors that promoted early reading. An 'early reader' was defined as a child able to recognize eighteen out of a list of thirty-seven words, without having received school instruction in reading. The early reader must also be able to score on two Gates' reading tests.

Children had learnt to read at three, four or five years, under a variety of circumstances. Forty-nine out of a first grade population of 5236 met the criteria in California with IQ scores ranging from 91 to 161. Testing for reading levels took place in May every year for five years. Durkin found that individual gains in reading scores made by children over the six year period ranged from 2.2 years to 9.4 years, with a positive correlation between achievement and intelligence. In addition Durkin administered an extra test at the very beginning of the second year of the study. The purpose of the extra session was to investigate a question raised by a 1941 research report by Keister, in which he maintained that reading skills attained by 'under age' children lacked permanence.[2]. Keister studied children who had been taught to read before first grade. He found they made normal progress by the end of first grade but had not maintained this level at the beginning of second grade. Durkin's extra test results did not support Keister's claim that the achievement of young readers was short-lived. Durkin also found it advantageous to later reading scores if children were 'double promoted', usually during

the first year, though it was basically the brighter children who were advanced to a class beyond their age group.

Data compiled from family interviews revealed that none of the subjects learned to read early 'all by himself', and that a small amount of informal help at home resulted in large achievement dividends. As Durkin observed:

> "The children who started to read at an earlier age entered first grade with superior achievement in reading, and they also maintained their lead over a five year period. Such progress hardly supports the numerous proclamations of those who, over the years, have strongly discouraged pre first grade help with reading for all children." [3.]

Durkin also periodically compared the reading achievement of her subjects with equally bright classmates who had not entered school reading. A two-fold comparison was made: the first focusing on all children with an IQ of 120 or less, the second considered the children in both groups, early and non-early readers, whose IQ's were 120 or higher. It was found that each of the early readers with an IQ of 120 or less was doing better in reading than would be predicted for him on the basis of the relationship between IQ and reading achievement scores. In other words, the lower the IQ of the early reader, the greater was the advantage of an early start in reading.[4.] Home interviews produced information in response to the following: family backgrounds and personal characteristics of the early reader, the most influential helpers in the early learning of the child and the kinds of help given. Durkin's results from these interviews will be dealt with in detail in chapter four.

Between the period 1958 and the start of Durkin's second study, two of the most highly publicised books about young children and readiness appeared. In 1960 The Process of Education by Jerome Bruner[5.] discussed the general topic of readiness in one chapter, and included the statement

> "...any subject can be taught effectively in some intellectually honest form to any child at any stage of development."

This statement, although not startling in the context of the book, was later frequently quoted, and frequently misinterpreted. J. McVicker Hunt, in his book published in 1961, Intelligence and Experience, [6] offered new interpretations of some of the earlier studies involved in the classical nurture-nature controversy. Of specific relevance to the education of young children was the claim that

> "the rate of development is in substantial part, but certainly not wholly, a function of environmental circumstances..... Thus, the greater the variety of situations to which a child must accommodate his behavioural structures, the more differentiated and mobile they become."

Hunt was saying a similar thing to Ausubel, a psychologist, who in 1959 stated,

> "Middle class children, for example, are ready to read at an earlier age than lower class children because of the greater availability of books in the home, and because they are read to and taken places more frequently." [7]

Other articles appeared such as "Why waste our five year olds?" [8] and in Time in 1960 an article highlighting the successful efforts of sociologist, O.K. Moore, to teach preschool children to type, read and write with the aid of computerised typewriters. [9] Montessori education began a revival in the U.S. in the fifties and sixties and even in State schools, especially with the Russian launch of Sputnik I in 1957, the education debate began stressing the inferiority of American education endeavours compared with those of Soviet Russia. National education policies were ambivalent on early learning; on the one hand defending the young child against anxieties and tensions of the times, and yet often in the same reports linking Kindergarten and the possible teaching of reading. [10]

The second study by Durkin identified a total of 156 early readers from a total population of 4465 in 40 New York City Public schools. The primary and most compelling reason for the second study was a lack of

data in the first one about children who do not read early, especially the preschool years of non-early readers, as well as personality characteristics. Durkin also wished to produce more valid data on the question of the correlation between reading achievement and intelligence.

Durkin randomly selected thirty from each group of early readers and non early readers, in order to make family interviews possible with both groups. Non early readers were matched on sex and IQ scores with early readers, and were from the same classes. As with the previous study, early readers consistently outperformed non early readers on reading tests over the three year period, especially those in the early reader group who were double promoted. As IQ scores of subjects of the New York study were generally higher than the Californian study (99-170 compared to 89-152) it was more difficult to make generalisations from statistical data concerning achievement as related to intelligence, but it was still found, over the three year period, that the advantage of a head start increased for the children with lowest IQ's, but decreased for those in the top of the range.[11.] In other words although high IQ children made greater gains compared with lower IQ children, the gains of higher IQ's over non early readers of similar intelligence were less than gains made by lower IQ children over non early readers of similar IQ's. Family interviews were carried out to gain information concerning socioeconomic status, siblings, parental education levels, nature of home reading instruction, parental attitudes toward preschool home tuition, the child's personality characteristics, play activities, television viewing habits and early reading interest. These results will be discussed in the next chapter. Sufficient now to say that Durkin found early readers and non early readers to be very similar in relation to the personal traits and characteristics selected for the study. Families were not nearly so similar, with differences emerging

especially in attitudes of parents towards helping children read at home. No simple connection was found between early readers and socio-economic status of the family.

Durkin's two studies represent the first large scale effort to determine what effects learning to read prior to school entry may have upon later school achievement. Control limitations and procedural difficulties affected to a considerable extent the reliability and validity of her findings relating both to preschool environmental features and in-school performance. The following factors must be considered in the interpretation of Durkin's findings. Regarding subjects, the 49 early readers in the Californian study attended 14 different schools; therefore because of varying school situations, they were really 14 different groups of children. The subjective and unverifiable nature of parental answers are open to question, especially as so much of the studies depends on the environmental differences between early and non early readers. Also much of the information required parents to recall events from two or three years earlier. Although turning to the New York study to investigate non early reader backgrounds alongside those of early readers, truly random procedures in choice of non early readers were absent, as these were to be in the same class as the chosen readers. Also the extra challenge of double promotion was not available to non early readers.

Durkin herself admits that non early readers chosen in the Californian study may have been a deviant group, since they were the only non reading children in schools whose IQ had been measured previously, for reasons unknown. The tests, being time consuming, are usually only carried out on children whose behaviour or achievement is unusual enough to warrant them. Numbers, especially in the second study, were very small (30 in experimental and control groups) and many may disagree with

Durkin's equating of the terms 'IQ', 'mental age', 'intelligence' and 'brightness', using them interchangeably despite the very different and often controversial concepts that each involves. Also questionable is correlation between the ability to score well on group IQ tests (in Californian studies), depending in large measure on reading ability, and success on reading achievement tests. It is also possible the gains of the preschool reader may have been more striking if the school instruction was designed to capitalize on the early reader's skills. Many first grade programmes are designed to stimulate the non reader into learning to read often at the expense of extending early readers to their limit. Match of early readers and non early readers was done on IQ in the New York study, but not on any of the variety of home environment influences which seem to help a preschool child learn to read. Despite the above reservations, Durkin's contribution to research of the early reader was outstanding, serving as a stimulus and a model for subsequent studies.

Plessas and Oakes in 1964 also attempted to identify the nature of prereading activities that might be associated with early success in reading. Their twenty subjects were largely of superior intelligence, and they concluded that

> "early readers are bright children who have had frequent association with a variety of pre reading experiences, with some attention given to beginning reading instruction prior to first grade." 12.

The intelligence and socioeconomic characteristics of this group of children do not match the findings of Durkin's studies, especially in California. In a study of Kindergarten instruction in reading, Sutton offered beginning reading instruction in the second semester of Kindergarten, with a total of "not more than twenty hours kinder time." 13. Participation in the programme was purely voluntary. Sutton also found

early readers achieved higher reading scores than their non early reading peers by the end of the third year of schooling.

In Brezeinski's [14.] study of early reading, involving 4,000 students, the Denver public schools taught beginning reading to experimental kindergarten groups. As children entered first grade, they were placed in either a traditional or an adjusted instruction programme. By the fifth grade those in the adjusted programme scored significantly higher on tests of reading vocabulary, comprehension, rate of study skills, than peers who had begun reading in grade one. In contrast, those children in the traditional programme lost their early advantage and scored similarly to the late starters by the fifth grade.

Briggs' and Elkind's (1973,1977) [15.] findings, when comparing the environments of early and non early readers, are comparable in most respects to Durkin's. They found curiosity was high for both groups in words and reading, though parents of early readers showed a higher level of 'parent achievement orientation'. Early readers themselves scored significantly higher on tests for auditory closure and sound blending, and showed a high level of operativity.

Torrey (1973) [16.] provides a detailed description of the way in which a young boy learned to read on his own. The availability of books and the opportunity to have his questions answered appear to have been the supportive factors, though the mother was not aware of helping her son particularly by answering his questions. Torrey concludes that the key to learning to read is having the child ask the right questions, and considers the 'learning' by the child more important than the teaching of him by those around him. Torrey's subject, John, had an average IQ score of 104.

Just as Durkin's extensive studies in the U.S. became a landmark in early reading research in the 1960's, so Margaret Clark's extensive

study [17.] has become one in the 1970's. Clark identified 32 early readers from an entering population of selected schools in the British Isles in 1971. The chronological age varied from under five to six and a half years. These early readers were identified by a two-step process using Schonell Graded Reading Test (oral reading of words in isolation) and the Neale Analysis of Reading Ability (comprehension). Children were considered early readers if they had reached a reading age of 7 years six months on the Schonell tests. Differing from Durkin's large scale community studies, Clark's work is mainly an intensive detailed analysis of the fluent readers chosen, their reading strengths and weaknesses, home backgrounds and schoòl progress. IQ scores were measured by both the Stanford Binet (ranged from 100 to 170) and Wechsler (1963) (range 98 to 146) as well as several other tests: Illinois Test of Psycholinguistic Abilities (ITPA) and the Bender Visual Motor Gestalt Test, the Wepman Auditory Discrimination Test as well as an extensive family interview dealing with similar topics as those investigated by Durkin. Children were also tested for their knowledge of terms used in early reading instruction, such as 'word', 'letter' and 'sentence', and their ability to explain or give examples of the difference between the names and sounds of the letters. At the end of the first year in school, teachers were asked to complete both School Report Forms and Rutter Child Scale B, giving information about attainment in relation to others in the class, interest in books, concentration, acceptance by other children, behaviour and other factors thought to be relevant. All children were sent a diary for Christmas and asked to keep a record for the month of January 1973 of all books read, and interviews with the children themselves were held in March 1973, the aim of which was to obtain as much information as possible on the present range of interests for these children. Ages ranged from

barely six to nine years of age. Finally, a second interview was held with parents in 1973 to discuss children's further progress. No comparison was done with a related group of non early readers, but Margaret Clark's observations on the differences between the two groups are particularly perceptive, especially in the light of recent learning theory related to the reading process. As stated, this study represented an in depth case study approach to the early reader, an attempt to look at every facet of development from the time the child began walking and talking. Clark examines the ability of early readers to handle many of the reading readiness skills especially in relation to their present reading fluency. Clark is also concerned that children are often considered 'at risk' academically on basis of background factors and even skills which may not be as relevant to the reading process as theorized. Parent interviews indicated a difference in personality and approach between early readers and their non-early reader siblings. However, because of the retrospective nature of the details of children's preschool behaviour, it can never be clear to what extent the parents' recollections are influenced by the child's present reading fluency.

Thus, a feature of the study of preschool readers is the scarcity of substantial research. Most research prior to Durkin was conducted for only short periods of time and dealt with a variety of chronological and mental ages. It concerned children already at school or in kindergarten, involved uncontrolled preschool preparatory exercises, or related an array of pre reading perceptual skills to success in beginning reading. These differences made it very hard to draw any conclusions about facilitating conditions for an early start to reading. Durkin's six year study seems to refute assertions of the harmful effect of early tuition and supports the view that the earlier the child learns to read, the more likely she is to excel in reading at the end of primary

school. Durkin favours incidental help by parents rather than deliberate instruction, although interviews were conducted and questionnaires completed long after events had taken place in the home. Clark's study also relies on memories of past events for home background conclusions, though the comprehensive profile which is built up of the skills, interests and weaknesses of the early reader is the most comprehensive we have so far.

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CHAPTER 4 : PREDISPOSING FACTORS IN EARLY LITERACY, A SUMMARY FROM RESEARCH

When drawing conclusions from studies of early readers it is important to consider the variance in age, grade and previous school exposure to reading. In addition, methodologies of studies differ greatly, making comparisons difficult. In spite of these problems, some common factors can be noted and generalizations made. Most striking about these groups of children documented in research is the level at which they were reading when entering school. They were not simply recognizing a few isolated words, but were truly fluent readers. Clark, [1.] for example, reports a reading range from 7.5 years to eleven plus years for her population of early readers at the onset of the study. All children in her study were reading both fiction and non-fiction books and most could spell at least some words. Durkin's subjects also showed surprising fluency. In the Californian study [2.] reading grade ranged on entry to school between 1.7 and 2.6 (that is, the one and two denoting grade one, grade two). This highlights the difficulty of trying to compare studies when different test instruments were used. It is interesting to note that children who began reading at three years with preschool help, entered the study with the highest level (grade 2.6) in May 1958, achieving a grade level of 9.2 at the conclusion of the study in May 1963. The majority began reading at four years of age, with a reading level of 1.8 and reached a level of 6.6. The five year olds began at a level of 1.7 and concluded the study at a grade level of 7.6. Thus these children were not only fluent readers when they entered school, but maintained their reading competitively at or above grade level throughout the six years. The following chapter shows that children in the author's Hobart study ranged in ability from a seven year to a twelve year level on the Edwards Reading Test. This was word

recognition and fluency of prose reading only as no test of comprehension was given.

It is often assumed that early readers are children with superior intelligence. Although in most studies the majority of early readers had a higher than average intelligence score, this was not true for all. Durkin reports a median IQ of 121 (range 91 to 161) for the Californian population, and a median IQ of 133 (82 to 170) for the New York group (on Stanford Binet, 1937).[3] Plessas and Oakes[4] report a mean IQ of 128, Briggs and Elkind a mean of 115.5,[5] each measure on the Wechsler Intelligence Scale for Children. Clark reports a mean IQ of 122.5 (on WISC) with a range of 98 to 146, and somewhat higher scores on the Stanford-Binet. When considering the mean scores, these populations of children are certainly above average in intelligence. However, when the range of scores is considered, many scores at considerably lower levels are noticeable. Obviously not all early readers are above average intelligence. Conversely, from studies of reading problems, we know a high IQ score does not predispose success in learning to read.[6] A high intelligence is not sufficient. The Silberberg study (1967)[7] of early readers referred to a psychological clinic found the lowest tested IQ was 34, while of the twenty six children whose IQ could be tested, sixteen were below 100. IQ's in the Hobart study ranged from 118 to 155 on Stanford-Binet. Intelligence is therefore not a crucial factor in reading.

Durkin theorizes that these early readers with average or below average IQ may benefit considerably by early instruction in reading, as they are able to learn to read slowly over a longer period, with a minimum of pressure, rather than having to learn to read in a few months in first grade. The relationship between IQ and reading achievement is complex, and how much IQ scores are influenced by the ability to read and related language abilities is uncertain. Clark[8] observes:

> "Intelligence tests are being questioned as measures of innate ability and the extent to which they are a combination of innate potential and environmental enrichment must be considered."

The link between intelligence and literacy, if one exists, remains elusive.

Several other special abilities that can be plausibly related to reading have been investigated in studies of early readers. Durkin (1961), Sutton (1964)[9]. and Clark (1976) found that early readers had the ability to concentrate for long periods, an observation made by both their parents and teachers. Evans and Smith[10]. matched 19 early and non-early readers. They administered the Illinois Test of Psychological Abilities (ITPA). All readers showed superior abilities on two of the subtests. One, the 'sound blending', consisted of the tester pronouncing phonemes of a word separately, sh-i-p, to see whether the child could put them together to identify the word. The other sub-test was visual letter memory, in which the child was shown a series of lower case letters for as many seconds as there were letters, then asked to recall them. The matched non-early readers' scores on both these tests were significantly lower. Briggs and Elkind's[11]. second study also found a large and significant difference between early and non early readers on the ITPA sound blending sub-test, with a smaller significant difference in the auditory closure sub-test.

Children in early reader studies have been described by teachers and parents as curious and questioning, conscientious, serious-minded and persistent. Although children in Durkin's first study were characterized by parents as 'persistent' and 'perfectionist', Durkin found from parental interviews that when matching early readers with non early readers in the second New York study, personal traits and individual skills and motivation of the two groups were similar when measured on the Bender Gestalt Test and Minnesota Tests of Creative Thinking.

Teacher Rating Scales also equated both groups.

Although Clark did not specifically deal with a control group of non early readers in her research, her comments on comparisons between early and non early readers are very perceptive. These comments are drawn from a previous study of children with reading difficulties, from the battery of tests she administered and from home interviews conducted. Clark especially examined the behaviour of non early reader siblings of subjects, and how personalities and approaches to reading differed for both groups. While Clark acknowledges with Durkin that the nature of the environment is a crucial contributory factor in early reading behaviour, she also implies that the early reader is, in many ways, different from the non early reader. Parents, discussing behaviour retrospectively, highlighted differences between early readers and non early reader siblings in personality, and in their approach to the reading process. Early readers were, in general, more able to amuse themselves, more engrossed and concentrated better in tasks, and had less need for another's company.[12.] For the majority of these children, reading came easily, many parents echoing one mother's comment, 'it just clicked', while other children who learned to read in school had to work at it.[13.] The environments of early and non early readers may well have been equally advantageous, Clark surmises, yet because of differences in personalities and interests, non early readers may have achieved highly in other areas.

Early readers cited by Durkin, Clark and others showed an early interest in environmental print, including print on television. Plessas and Oakes[14.] report that their entire group of twenty early readers "gave attention to signs on trips and asked questions about words, letters and numbers." Several parents in Clark's study described attempts to discourage the child at first from beginning reading, until as one mother described it, she realized it was impossible.

Another described adverse comments by neighbours, assuming she must have coached the child at the expense of other areas of development. Only a few parents in Clark's survey had made a conscious and systematic attempt to teach the child to read with graded readers, flash cards and similar material.

> "Even then it was clear that several were taking this step as a result of, not in order to develop, interests expressed by the child." [15.]

Once the skill was acquired, children read avidly, most using the local library regularly and often alone. 'Total concentration', 'loses himself completely in what he is doing' and 'engrossed' were all terms used by parents of fluent readers.[16.] Durkin also documents this motivation on the part of the child to make sense of the print environment around him. Competitiveness and eagerness to keep up with a sibling are also prominently mentioned, as well as the unusual interest early readers showed in being read to, in printing, in spelling, and of course in reading. Whether it was the television programme, the labels of cans, street signs, or a favourite story book, the initiative came overwhelmingly from the child. Other researchers, such as Goodman (1982),[17.] Lass (1983)[18.] and Payton (1982)[19.] also highlighted this intense interest in written language, apparently originating in the child.

> "They took the initiative and reached out to find just the specific help they needed in solving the problem of how to read." [20.]

Individual interests and aptitudes were highlighted in many of the tests conducted. Clark found with early reader subjects that in the administration of the Stanford Binet IQ test "successes were frequently in tests involving memory for language."[21.] These included digits, digits reversed, naming days of the week and memory for sentences and rhymes. Also, although these children appeared well above average on ITPA, early readers scored very high on sub-tests involving language

memory, these being Auditory Sequential Memory (memory for digits), Grammatical Closure which involves the successful completion of sentences such as 'Here is a bed. Here are two .....' and to a lesser extent Auditory Association which involves completion of sentences such as 'Grass is green. Sugar is .....'

> "Auditory memory for sounds in sequence, and tasks involving completion in a language context, are the areas in which the group, as a whole, appear to be particularly successful." 22.

Again, Torrey, Clark and others, however, raise the question of the causal relation between high scores on these subtests and the already proficient ability to read.

> "It is not possible to determine whether, or to what extent the success in these subtests is caused by or resulted from their early success in reading." 23.

Visual input subtests of the WISC and ITPA were not an area of great strength for Clark's subjects, and tests indicated (Bender Visual Motor Gestalt) that early readers had varying levels of visuo-motor coordination, with many subjects below average. Thus early readers were clearly stronger on auditory tasks and language memory. Early readers also approached tasks and testing situations differently from non early readers. Clark administered the Wepman Auditory Discrimination Test (1958) to the 32 early readers and to a group of 197 non early readers. All readers achieved valid scores on the Wepman, many achieving high scores. All completed the test. On the other hand, of the 197 non early readers, only 81 were able to achieve valid scores. Clark suggests that factors besides just auditory discrimination were dealt with in this test, factors, Clark suggests, such as interest, motivation, significance of the task, articulation and vocabulary. Clark feels these all play a part in the testing situation, and it is significant that while auditory discrimination is not the cause or effect of early reading, the ability to complete a highly language related task is significant.

The test had sufficient meaning for early readers to recognize and so continue with the test.

> "...It is, yet, further evidence of the awareness of these children, who are fluent readers, of the discriminations which are of significance in the language context in which they are rapidly developing such fluency." [24.]

Clark characterizes the early reader's particular strengths as being his "powers of concentration, his memory for sounds in sequence, his precocious language development and his motivation."[25.] Clearly the child with these personal characteristics and skills is greatly benefited by a supportive and stimulating environment.

Generally data on the contribution of specific abilities to reading success in early readers is inconclusive, and achievement may have been possible in part because of a number of small advantages in ability. No one identifiable factor alone explains the early acquisition of reading skills. While considering abilities, it is worthwhile to mention the hypothesis of the Silberbergs' (1971) that ability to read is a normal psychological variant, that is, an ability separate from intelligence and other verbal abilities, which is distributed normally in the population.[26.] They base their proposal on the fact that dyslexia can exist in high ability individuals, while what they call 'hyperlexia' or superior word recognition coupled with low comprehension, is found in some of very low ability. Early readers, then, may have an inherited trait that made reading especially easy for them, without regard to their intelligence. Conversely, using this argument, high intelligence or other verbal abilities would not always be able to compensate for those with very low reading ability.

Another commonly expected correlate of early reading is socio-economic status. It is surmised that greater value is placed on education in middle class families, hence it is expected that these parents will provide more encouragement, materials and help to their

children in areas such as reading. In Durkin's first Californian study, only 7 children, or 14% of the 49 came from families who could be called upper middle class. About one third were 'lower middle', while more than half were 'upper lower'. This study is the one least susceptible to socioeconomic bias in the original selection of subjects, as almost all children in a large urban school system were tested, and children at higher socioeconomic levels were least well represented. From interviews with parents, Durkin suggests possible reasons for so many early readers in blue collar families:

> "Interviews with parents in the lower socioeconomic classes consistently revealed a ready and even enthusiastic acceptance of preschool reading ability. They seemed to view it as the beginning of better things to come. In contrast, parents in the higher socioeconomic classes showed concern and, seemingly, even guilt feelings about their children's ability to read before entering school. Without exception, they asked about the possibility that help at home might interfere with instruction at school." [27]

Other studies, such as Plessas and Oakes, Briggs and Elkind conformed more closely to expectations of higher socioeconomic groups. Clark, however, rejects the notion of social class as an important variable in defining the likely attitude to education. Her findings certainly seem to refute the connection. Although class status is not given as such, at least 50% of all parents in the study left school at fifteen years or less, with no further training. Referring to data collected, Clark states:

> "....The lesson from these interviews was a clear one that it is crucial to explore the parents' perceptions of education and the support and experiences they provide by measures far more sensitive and penetrating than social class, father's occupation - or even education of parents. These homes were providing rich and exciting experiences within which books were indeed an integral part." [28]

The implications of her comments in this area are particularly far reaching, when considered in relation to schooling:

> "Just as it is important to consider the attributes of the

> child who succeeds when our 'at risk' estimates would have led to a prediction of failure, it is equally important to consider the qualities in the homes where the majority of children are more successful than would have been predicted."[29].

As all children in the studies considered learned to read before entering school, it is now necessary to look at home environment and factors which have obviously facilitated early fluency in reading. The environment of early readers has been quite extensively researched, although the data is purely correlational, with no causal relationship having been proven between the environment and early reading. Research has been based almost exclusively on parent interviews, mostly retrospective. Thus results may have been influenced by both accuracy of memory of past events and interviewer bias.

Teale (1978) has identified four environmental factors which have been repeatedly associated with early reading. Teale's interpretation relies heavily on studies of Durkin and Clark, and includes the following factors:

(1) An availability and range of printed materials in the environment. These materials include books, newspapers, workbooks and print (signs, labels).

(2) Reading is 'done' in the environment. This factor includes the fact that children were frequently read to by parents and siblings, and also, that those in the environment consider reading important and are readers themselves.

(3) The environment facilitates contact with paper and pencil and

(4) Those in the environment respond to what the child is trying to do.[30].

It is not surprising that the availability and an abundance of printed materials characterizes the environments of early readers. This accessibility enabled children to use and get used to written language.

Durkin (1966) mentions the 'easy availability' of print for children in her Californian study, and the interviews of parents in the New York study indicate the presence in homes of a wide range of story books and alphabet books. Forester (1977),[31] in case studies of children who learned to read without direct teaching, also attributes children's abilities to stimulating environments which provided wide ranging experiences with print. King and Friesen (1972) [32] also cite the importance of access to books which were easy enough for the children to understand. These print experiences are not confined to the number of books owned by the family, however. Clark found extensive use of the local library as a source of reading material for children in her study. Neither was the range of printed materials confined only to books. Clark, Durkin, Gardner (1970),[33] Krippner (1963)[34] and Torrey (1969)[35] all cite the significance of 'everyday print' in the child's learning to read. Car names, sign posts and names on products at the supermarket, labels on medicine bottles, newspapers, the television guide (frequently used by many of these fluent readers) and words found on television commercials (especially John in Torrey's case study) were among the wide variety of printed materials used by children as they began reading.

Television viewing varied between studies: Durkin's children were reported to watch television less than non early readers, whereas Plessas and Oakes reported much television viewing among their group. Briggs and Elkind's early readers were significantly more likely than non readers to watch "The Electric Company", where reading is consciously taught. Clark reported that all but two children watched television in her study, including reading oriented programmes, school broadcasts, and animated cartoons.

"Indeed, in many instances children were themselves selecting

> after consulting the day's viewing details....children were themselves described as selective, either leaving the room if not interested, or absorbing themselves in a book to the exclusion of all else.....Encouragement in the development of selectivity by the child was a striking feature in many aspects of the lives of these families". [36.]

Thus these early readers have had a diverse range of printed materials available to them, which they have utilized to achieve the dual tasks of understanding the reading process and comprehending their environment.

However, the mere availability of print in the child's surroundings, while a potential source of reading, will remain unrealized unless the child comes to understand the function print serves in the environment. That is, the child must learn that print is meaningful, "....an awareness that print carries a message, that it is a communication in writing." [37.] The written word must be accompanied by interpretation. Frank Smith (1977) suggests the basic way children come to realize this special insight that print is meaningful is by hearing 'environmental print' being read or by seeing environmental print being responded to.[38.] The early reader in Torrey's case study appeared to come to reading in this manner. He memorized television commercials and recited them as they appeared on the screen. Of course reading books to children is one of the most powerful methods of demonstrating that print is another form of communication between two people, in this case between the author and the child. As the child becomes engrossed in the written message, he becomes sensitized to the structure and nature of written language, that is, "... becomes familiar with the 'language of books'."[39.]

Not surprisingly, reading to children was the factor most often cited in the learning environment of early readers, the incidence of which was higher for early than non-readers in Durkin's studies. Durkin reports that all 79 of her subjects were read to by parents, and many were also read to by siblings. Sutton (1964), Gardner (1970),

Plessas and Oakes (1964), Briggs and Elkind (1977) and Clark (1976) also indicate that reading to children was almost universal for all subjects. Not only were children read to, but they were able in the majority of cases to have the role model of parents themselves as readers. Durkin and Clark both found from interviews that, in most cases, one or both parents valued reading for themselves, many of them being 'avid' readers. Clearly, early readers were led to look on reading as an interesting, pleasurable experience, and this was reinforced by the general high regard in which reading was held by the children's families.

It is initially surprising that writing plays such a large part in the environments of early readers. Durkin described her subjects as 'pencil and paper kids' and outlines why she feels this is important to a developing competence in reading:

> "Almost without exception the starting point of curiosity about written language was an interest in scribbling and drawing. From this developed interest in copying objects and letters of the alphabet. When a child was able to copy letters - and not all of the children who had the interest developed the skill - his almost inevitable request was, "Show me my name".
> Many parents also told of how a child's interest in his own name grew to include interest in copying the names of parents and siblings, other relatives and friends .... it appeared that interest in copying led to long term and seemingly intense projects which included, for example, the making and remaking of calendars and address books. What all of this emphasized is that preschool interest in reading very often develops from a prior interest in copying and writing."[40].

Torrey (1969) and Plessas and Oakes (1964) also list writing, copying and printing as in the environment of early readers, while ten of Clark's 32 subjects were very interested in writing before four years of age, with most subsequently becoming interested in blackboards, paper and pens. Teale raises an interesting point about the lack of reference to writing in many studies of readers:

> "It is important to note that many studies excluded 'a priori' any attention to writing. Whenever an investigator did enquire about the pencil and paper factor, it proved to be important." [41].

Through writing children are able to become active participants in teaching themselves to read, and the value of approaching beginning reading from a total language arts model is certainly borne out in research from as early as Montessori.

The final factor which constantly appears in studies of early readers is the availability of parents, usually the mother, older siblings, and other family, who are concerned enough about facilitating the child's attempts at dealing with written language. These family members are willing to help with reading whenever and in whichever way it is needed. Both Clark and Durkin indicate that the responsiveness of those in the environment of the early reader is of great importance. The quality and richness of parent-child interactions is frequently cited by these researchers. Durkin says of parents that:

> "... the homes they provide, the example they show, the time they give to the children, their concepts of their role as educator of the preschool child - all of these dimensions of home life and of parent-child relationships appeared to be of singular importance to the early reading achievement." 42.

In addition, the help that the parents, especially the mothers, gave to their children was very aptly timed. Of the 32 children in Clark's study, 25 first received help from their parents as a result of the child's direct questioning. In Durkin's New York study, for 25 of 30 children in the experimental group, parent help with reading came in response to the child's questions. Clearly these children were actively seeking help and the parents were perceptive enough to give that help at the time it was most needed. For 38 of the 49 subjects in Durkin's Californian study, parents did not deliberately plan to teach them to read, rather it resulted from the overt curiosity of the children themselves.

> "...the actual amount of help given ... depended upon the frequency and the persistence of the children's questions - and upon the patience and free time of people in their families." 43.

They read to the children, frequently the same stories over and over

again, they answered questions and explained the alphabet, gave help with printing, identified written words, grammar and spelling rules. Clark characterizes this type of interaction for the early readers in her study as "casual" rather than systematic, "part of their daily life rather than separate." [44.]

Both Durkin and Clark also commented from interviews that mothers of early readers never described themselves as 'busy', suggesting that they were always easily available when help was wanted. To look at this responsiveness and encouragement by parents in another light, it is interesting to read Thomas' study of four year old readers and non readers, considering specific toy preferences of both groups, and perhaps more importantly, parental descriptions of their children.[45.] Each mother was asked to list five words to describe her child, from a list of possible words. The parents of non readers used significantly more negative words to describe their children, and parents of readers used correspondingly more positive vocabulary. Parents of readers used significantly more cognitive/creative words, while parents of non readers used more emotional/social words. Positive words included active, energetic, bright, curious, inquisitive, gregarious, friendly, and loving. Negative words included anxious, bossy, controller, demanding, dependent, easily frustrated, exasperating, hot-tempered, mischievous, restless, slow, stubborn, temperamental, and timid. Margaret Clark particularly notes the rapport which seems to exist between parents and their early readers, with parents repeatedly commenting on the child's memory, powers of observation, ability to concentrate and revealing their pleasure, pride and sensitivity to the child and what he was trying to do. Negative reactions played no part in their descriptions, though how much this is related to the fact that the child could read and perhaps therefore was easier to manage, remains speculative. Of course, some parents did

deliberately set out to teach their children to read, providing workbooks, and teaching letters and sounds, though those such as Soderbergh (1971),[46] are quick to stress the futility of the exercise without the initial interest of the child.

Research then gives a clear picture of the environment of early readers, which is characterized by their responsiveness to environmental print and the world of stories, and reinforced by the presence of adults willing to answer questions and provide confirmation of the hypotheses the child is making about the printed word.

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CHAPTER 5 : EARLY READERS IN HOBART

In early March 1986, following official approval from the State Education Department, seventeen schools were contacted, either personally or by phone. Cooperation was requested in isolating 'early readers', that is, those children reading fluently in Kindergarten, Preparatory Class or Grade one. Only those Grade one children were included who had come from Kinder in 1985. The Kinder year was not considered a formal teaching year for reading. Children were referred by class teachers, and none had been tested by the schools for reading ability prior to this. A seven year reading level on the Edwards Reading Test was required for inclusion in this study. This put the early readers decidedly beyond the 'at risk' category, and meant they were independent readers, able to cope with a wide variety of print in their environment. Each level of the test involved a Quick Word Screen Test (QWST) of ten single words, followed by a short prose reading. Children must read eight or more words correctly on the QWST in order to score at that level, and a 90% accuracy is required on the prose sample. The Edwards Reading Test was chosen because it was very simple and quick to administer, and the prose readings seemed more suitable for young children because word recognition was enhanced by an understanding of the meaning of the passage. Reading tests involving single words or isolated sentences are questionable as indicators of free reading ability, especially of young children, where semantic cues are denied them.

Several children referred were recognising words but were unable to score at a sufficiently high level to qualify. Many others were referred hesitantly, teachers considering that they probably would not be reading well enough. As the five children reluctantly referred were reading at levels between a seven year and an eleven year level, it is possible some early readers in schools were missed.

Thirteen children made up the sample from six schools: five contributed two children each, one contributing three. Because of constraints placed on the study by the Education Department regarding the number of participating schools, the majority visited were in the so called 'higher socioeconomic' areas, that is, amongst the wealthier housing areas, as well as close to the University. It was supposed that more early readers would be found here, because of a preponderance of educated, professional parents. Eleven of the seventeen schools fell into this category (four of the six contributing schools). Limited Education Department approval also meant no control group could be studied in order to compare home backgrounds of early and non early readers.

Reading Level

An oral practice test was given to children first (see Appendix 1). If reading of this passage was accurate, the child began the Level 6 test. All levels of both the word recognition test (Quick Word Screen Test) and the prose test are reproduced in Appendix 2.

Unlike many other studies, such as Plessas and Oakes[2], Durkin[3] and Clark[4], boys predominated as early readers (eight of thirteen). Reading levels ranged from seven year to twelve year level.

TABLE I : Reading Age on Edwards in relation to age at March 1986

Age at Test (yrs/mnths)	Frequency of children on prose reading test (Year level)					
	7 yr	8 yr	9 yr	10 yr	11 yr	12 yr
5.0 - 5.6	3			1	1	
5.7 - 6.1		3	1	2	1	1
	Frequency of children on word recognition test (Yr Level) (Q.W.S.T.)					
5.0 - 5.6	3	1	1			
5.7 - 6.1	2	4		2		

It was very noticeable that in many cases fluency and hence reading scores were much higher on the prose list than on the word list for each age level as shown in Table I. Seven children remained at the same level, but six children increased scores by up to three years. Accuracy for these children increased when contextual clues were provided and the child was able to understand what he/she was reading. No comprehension test was given, but it was particularly noted that, without exception, children read fluently, with intonation and emphasis, indicating a high level of understanding. There was at no stage any of the stilted reading so often heard in classrooms. Reading had become a meaningful and useful occupation in which one participated for a particular reason. The exceptions to this were at the higher levels: Oral 11 described a tennis match, using unfamiliar vocabulary such as 'youngster', 'opponent', 'rally', 'postponed'. One child 'read' at the twelve year level with very few mistakes, but the test was concluded here because of the totally incomprehensible (to the child) text of the thirteen year level, which dealt with the Roman Empire and Christianity. Another child stopped mid way through Level 11 and refused to read any further because he was not understanding the content and obviously could not see the point of continuing. He had only three mistakes at this point but said he had 'done enough'. This child was particularly interesting. He insisted on reading a passage from an obviously familiar book from the shelves of the library (where the test was held), concerning his favourite topic of cars, before he would consent to taking the test!

Children tackled words they had obviously never met in print, and it is unlikely they had heard in speech, yet because of their sufficiently well developed knowledge of spelling rules, they were able to work them out. This 'working out' was rarely slow and laborious, usually silent and children tended to stop reading rather than try to continue when

words were beyond them. They seemed to know when they had reached their level of competence and could see no reason to continue. It was very clear that children were slowed down by being forced to read aloud, and often made simple mistakes because they were busy looking ahead of the passage, searching for cues to give a greater understanding of the meaning and so help word recognition.

Spelling Ability

All children were given a Daniels and Diack[5]. Spelling Test of forty words, varying in difficulty from 'on' to 'beautiful' (Appendix 3). Scores ranged from 1 to 27 correct, or spelling ages from five years three months to eight years one month (the youngest child).

TABLE II: Spelling Ages on Daniels and Diack Spelling Test

Score in Spelling Test (Number of Words Correct /40)	Spelling Age	Age at Testing				TOTAL
		5.0 - 5.11		6.0 - 6.11		
		B	G	B	G	
27-31	8+		1			1
18-26	7+	2	3	1	1	7
9-17	6+	1		2		3
Up to 8	5+	2				2
						13

From Table II it can be seen that only two children had a spelling age of less than six years, and it is noticeable that a greater proportion of younger children (between 5.0 and 5.11 years) gained higher spelling ages of seven and eight years when compared with older children.

The test was long for children of this age, and many became very tired. One child became so tired she completed the latter half of the test orally. It was clear that most children had developed writing skills concurrent with reading skills and parents confirmed this, referring to an abundance of pencils, paper and blackboards in the environment of these readers. The mother of the child who scored only one word correct

spoke of the child's intense dislike of writing possibly because he had very poor fine motor coordination. In an attempt to interest him more in writing, she encouraged him constantly and even shortened his name to three letters so that it was easier to write. As he was unable to become accomplished in this task as he could with reading, he ignored it completely.

Despite only scoring two on the spelling test, another child had done much writing at home, writing the alphabet not long after his fourth birthday, copying large amounts from television (stopping the video to do so), preferring to 'paint' the alphabetic symbols instead of a picture at play group, yet he remained unfamiliar with even the simplest phonetic rules, instead, relying on memory. Nevertheless the motivation to write was still strong; at four years six months he spontaneously made a notice for the painter to place on the house door while he went to the shops with his mother, 'Gone to the grosry'. His mother was very careful never to attempt to teach him anything, considering his every attempt 'brilliant'. It is interesting that another mother admitted actively discouraging any introduction to reading and spelling to the extent of refusing to tell the child how to spell his name before he went to school. Yet this child managed to teach himself, achieving a spelling age of 7.5 years (reading level of eight years). As IQ and chronological age of these two boys was similar, the only other difference in the environment was the presence in the second one's case of an older brother who was learning to read at the same time. The first child, scoring only two, was the eldest child in the family, so no alternative form of help was available to him. Thus children were becoming sensitized not just to written words, but also were becoming motivated to write for themselves, both creatively and functionally.

As also observed by Clark,[6] many children in this study were very aware when words were incorrectly spelt, especially the more fluent readers. Several knew the correct letters and commented that they were not sure in which order they went, for example, mistakes included 'sihp' (ship), 'anwsr' (answer), 'tihn' (thin), 'parm' (pram), 'aer' (are). These children, more aware of incorrect spellings, disliked continuing when they knew the words were beyond them. Two children asked how to spell some of the words. Yet many had aquired a knowledge of 'double sounds', though these were not always used in the correct place, example lowd' (loud), 'grayt' (great). In several cases children could think of at least two possible spellings, and then tried to recall the correct form. This was evidenced by words written then crossed out and attempted again. Peters' (1970)[7] characteristics of good spellers: carefulness, persistence and dislike of making mistakes, were also observed in this small sample of early readers. It appeared these children had very good recall skills and it seemed that as children thought about the words, they were trying to visualize them in books they had read. Half of the children wrote with a mix of upper and lower case letters.

TABLE III: Comparison of Reading Ages (Edwards) and Spelling Ages (Daniels and Diack)

Spelling Age	Reading Age						
	7+	8+	9+	10+	11+	12+	TOTAL
8+				1			1
7+	1	2	1	1	1	1	7
6+	1			1	1		3
5+	1	1					2
							13

The majority of early readers achieved higher reading ages than spelling ages, as shown in Table III (12 of 13), the highest spelling age only

eight years,while reading levels reached twelve years. This does not correlate with Margaret Clark's[8.] results, where spelling ages more closely matched reading ages of children.

Motor coordination as far as writing was concerned, varied from below average to above average for their age, and poor coordination was especially noticeable in the boys. However the two boys exhibiting extremely poor writing were very fluent readers (eight year and ten year levels). No measurement of mathematical ability was recorded, though mental arithmetic was noted as a weakness in five subjects as part of the IQ test. The same number of parents noted their child's interest and ability in number work.

Intelligence Testing

As far as IQ measurement is concerned, children all fell above the norm of 100 points on the Stanford Binet Intelligence Scale Form L-M. IQ's ranged from 118 to 155 (See Appendix 4) with consistent strengths noted in language skills, particularly vocabulary and knowledge of word meanings, the ability to explain similarities and differences in items such as an orange and a tennis ball, and an understanding and the supplying of rhyming words. The excellent command and use of language was particularly commented on for the majority of children. Also obvious, was the excellent memory of subjects for recalling both immediately spoken material and visual designs, as well as long term memory, evidenced by excellent general knowledge. When dealing with a sample clearly so far above the average, a discussion of weaknesses is purely relative. However, those items which proved difficult for the majority of subjects were spotting absurdities in short statements, and mental arithmetic. It is interesting that one of the children reading at an eight year level showed weaknesses in recall of numbers, word meanings, remembering details of a story and giving differences and similarities between like objects. This child was found in a school from a working/

middle class area and recommended very hesitantly by teachers as not fluent enough. It is unfortunate that one child's parents refused to allow an IQ test, especially when it appeared from the home interview that there had been very little input from the family in the area of reading. He appeared to learn from a brother one year older who was also learning to read.

Home Background Experiences

For the parent interviews a similar questionnaire was used as given by Margaret Clark in the study outlined in Young Fluent Readers. The topics covered included the child's early development, the education and interests of the parents, and early experiences in the home, especially relating to reading and writing, which may have contributed to the precocious reading ability of these thirteen children (Appendix 5). All families co-operated, with either one or both parents taking part in the interview which was held in the parents' home. It was hoped to match features of early experiences with those mentioned in other studies as contributing factors to early reading ability. Unfortunately it was not possible to interview also a similar control group of non readers. As in studies of Clark and Durkin, data gathered on home background from parents remains subjective and cannot be verified by research.

When the supposed 'privileged' background of most of the children was considered, it was not surprising to find uniformity in such characteristics as family size, position in family and parents' education level. As can be seen from the following table, the majority of children were the eldest in families, which were no larger than three children.

TABLE IV: Size and Rank in Family

Size of Family	Rank in Family	
	Frequency	Place in Family
1	0	
2	7	6 elder, 1 younger
3	6	2 eldest, 3 second, 1 youngest

Of the four 'second' children, the age gap between them and the elder child was small, no more than eighteen months, and in all cases the older sibling was either a proficient reader (1 of 4) or still learning to read (3 of 4). The early reader in the latter three cases had surpassed his/her older sibling in reading. This had caused problems in most families, but had been approached by parents in very different ways, ranging from active discouragement to complete encouragement and support. A significant number of early readers with younger siblings were endeavouring to pass their skills on to the younger brother or sister by 'teaching' them with reading games, cards they had made, reading to them frequently and pointing out words.

The age of the mother at birth of the fluent reader ranged from 21 - 34 years, with the majority between 25 and 30. (Table V)

TABLE V: Age of Mother at Birth of Early Reader

Age of Mother	Frequency
21+	3
25+	9
30+	1
	13

Of these, only five had worked outside the home for any period since the birth of the early reader (two full-time, 3 part-time), though two were moving out of the home this year, one to work, the other to full-time study. It was particularly noticeable the emphasis these mothers placed on providing a suitable and stimulating environment for their children at home, preferring to provide this themselves in the preschool years rather than placing the child in a creche or day care. Four expressed their dislike of using child care centres. The frequent descriptions of activities shared by mother and early reader reinforced Margaret Clark's observation that mothers in her study welcomed rather than rebuffed

attempts at verbal interaction with the child, and that they provided them with a variety of interesting materials with which to occupy themselves.[8] Most were 'available' to encourage, answer questions, point out words in the environment and help with early reading attempts. One mother spoke of her desire to be with the child, as it is a 'precious time'.

In many cases these women had left a career to become a mother, careers ranging from draughtswoman, to nurse, to teacher. Nine had either University degrees or tertiary college qualifications. Most children had been taken to some form of playgroup for one or two hours per week prior to the kindergarten year. Two children had spent two years in Kinder (at different schools) while another had been placed in a creche for almost the entire four years before Kindergarten, from 8.30 am to 5.30 pm each day.

All parents displayed an absorption in and enthusiasm for their role as parents, and it was not surprising that several mentioned that weekends were devoted in large part to the children and activities together as a family unit. One child's parents spoke of organising activities so that they always have a goal to work towards at weekends. This mother spoke of her son's incessant questions, which, although very trying, were most enjoyable as she learned so much from his enthusiasm as they attempted, through library books each week, to solve his queries. This child was also described as so 'busy' and engrossed in his own activities that parents were forced to physically hold him and gain eye contact if they wished to tell him something when he was occupied. He otherwise did not hear them. All children came from conventional families in which the father was the breadwinner, but in all families where the father was also interviewed (eight) his involvement with the child was pronounced, either through reading stories, hearing reading, playing

reading and non reading games or organizing weekend activities. Durkin found from both the Californian and New York studies that very few fathers were available for the home interview, and were rarely referred to as providing help with reading or organization of any activities with the child. This was explained by the father's need to work long hours, often holding two jobs to support the family adequately. Clark found greater participation by fathers in family life, though mothers were mentioned twice as often in respect to helping the child with reading games and activities.[11]. Many parents expressed the desire to provide more for their children in the way of extension activities and several were keen to hear of Explorers Unlimited, a local organization for gifted children.

Parental Education and Occupational Status

As stated earlier, the majority of early readers in this sample were from families in a 'favourable' social class as regards occupation and available resources. Six fathers had either tertiary college or university qualifications; the remaining seven had done no further training after leaving secondary school (no Matriculation). As outlined above, nine mothers had tertiary qualifications. The emphasis most parents placed on education was striking, as well as the need to both support the school programme and provide additional opportunities for learning at home. Even those parents with no tertiary education could see how crucial it was in today's society for the child to succeed at school. One father insisted it was necessary to discover the strengths of his child, so competence in this area could be increased.

Books formed a major part of most households, and even though fathers on the whole had fewer tertiary qualifications than mothers, the reading interests of fathers seemed to have been particularly significant. Because of time constraints involving the care of children,

the home and sometimes also employment, only five mothers said they would read more than the average, that is, at least one hour per day. The remaining eight mothers read little, though three described themselves as previously being avid readers before having children, many excelling in reading at school. Of the fathers, however, ten were described by their wives as reading more than average. They read fiction, non fiction, technical journals and two spent at least an hour each day reading several local and mainland newspapers. Only one set of parents said they read very little, reporting the only books in the home were the children's! As well as providing books for their children, ten families visited the local library regularly, two from the time the child was eighteen months, and many children were used to choosing their own books from an early age.

Children in most cases were allowed to leave their bedroom light on for some time each night in order to read. One child, the youngest in the study, apparently read often until 10.30 pm. The same child at four years of age was heard to be reciting The Tale of Peter Rabbit[12]. to herself in the dark, indicating the turning of the pages at the appropriate time. Another parent described how her child, always fond of comics, realized one day that the words under the picture described what was happening. From then, she said, he endeavoured to work out the words and find out the story. Books formed the axis of communication between the parent and the child, one mother telling how library visits always revolved around finding books, usually non fiction, to explain phenomena the mother and child had explored, usually in nature, during the past week, for example insects collected, shells, gardening. As books chosen were often too difficult, the parents interpreted for the child. The same parents explained how their early reader loved copying words and sentences from a certain picture dictionary, but felt if they bought it, the child would lose interest in it because it was so readily available. Hence they borrowed it every few weeks from the

library and the interest was sustained. Many bedtime stories had gone beyond picture books and were serialized stories, such as Charlotte's Web.[13] One parent described how her child loved reading ahead to the next chapter before her father came to read it to her at night. For all these families, the written word was valued as a source of entertainment, of knowledge and of challenge, and formed an important focal point of communication between the parents and the child.

In only one of these families was an older sibling reading fluently on starting school and this was a professional family of very gifted children. In the three other families where the older siblings were not early readers, it appeared from the interview with parents that few role models for reading were provided, and no encouragement was given to read by parents. The younger siblings, i.e. the early readers of this study, were only motivated to learn as the older brother or sister began instruction in reading at school. It is notable that younger siblings of seven early readers, ranging in age from two to four years, were showing considerable interest in books and writing, most unable to avoid it in that they were being tutored by the early reader! It was common for the three and a half year old sibling to be writing his/her name, words, memorising stories, and in two cases, writing words as the mother sounded them out.

Regarding early development, the majority of subjects walked at the 'average' age of around twelve months, yet nine parents noted children talked earlier than expected, that is, well-formed sentences by the second birthday. One child was credited with 16 words on her first birthday. Two children talked later than expected, though one of these spoke 'jibberish' until two, when she suddenly formed understandable sentences. All subjects had had very healthy preschool years.

Fine motor skills were very undeveloped in one boy to such an extent that he avoided writing and drawing almost completely, and drawings were

virtually unrecognisable. The same child had problems with gross motor skills, also avoiding boisterous play. As his mother explained, he was not very proficient on the outdoor equipment, unable to balance on his bike (still on trainer wheels) and was always the one to get hurt when playing outdoors with his peers or siblings. As a baby he was continually frightened of being hurt, and very aware of his own physical limitations. He was still crawling backwards down stairs at three years old. The above factors may lead some teachers and parents to look upon this child as 'at risk' in terms of his ability to succeed at the more academic subjects such as reading and mathematics, especially as neither parent was professionally trained. Yet this child, through sheer determination, had virtually forced his parents into teaching him to read, although they (his parents) had set out to help his elder sister who was having reading problems. By his sixth birthday he was reading at an eleven year level. This child when tested had the lowest IQ of the sample (118).

Early Reading and Related Experiences

Only one parent set out specifically to teach her child to read, and this was at age two by the Doman[14] method. This attempt was a dismal failure as the child was totally uninterested, so lessons lapsed. Six months later, however, the child began recognizing words in the environment and asking what they were. Another parent spoke of starting her child on Ladybird Graded Readers[15] when she began to read, but the child became so bored they were soon discarded for Picture Puffins. Most parents provided activities as the child's interest in words grew, until books, writing and reading games dominated the waking hours of many of the subjects. Almost all parents expressed surprise that their child was included in such a study, and were unaware of how far advanced subjects were. All were anxious to explain that no formal reading teaching had been embarked upon, and few, except the six mothers who were teachers, had any real understanding of what was involved in beginning reading teaching. One mother, probably speaking for many of the

teachers, said she was aware of the theory but lacked time to ever put it into practice.

Half of the parents felt their child had been reading for approximately a year, with the remainder divided between six to nine months and eighteen months to two years. Many commented that the child had increased dramatically in the last six months, so it is not known how long subjects had been reading at the level tested. Children began recognizing words in the environment, at the supermarket, in city streets and on television commercials, from as early as two years, though two-thirds began between three and four years of age. The children read a variety of print. Although fiction predominated, non fiction figured heavily in the reading of four boys, and one-third also read newspapers. One-third also mentioned keen interest in maps and atlases, usually in conjunction with parents visiting interstate of overseas, or programmes on television. Comics were alluded to by one family. Half of the families had discontinued library visits since the child was able to borrow from the school library, though those children still using the public library tended to be those who maintained most interest in reading at home. Parents were still reading to two-thirds of children, though increasingly the child read to the parent, a younger sibling or him/herself. Approximately one-third of subjects read very little at home even though now relatively fluent, while almost half the subjects enjoyed reading to parents or siblings. Two-thirds read silently to themselves. These avid readers often found it frustrating to have to read aloud, often degenerating to a mumble in order to read faster. One father complained his daughter was not a very good reader, especially lately, because when reading aloud to him she "skipped conjunctions and prepositions, read too quickly, made silly little mistakes and always seemed to be looking ahead at what was coming instead of concentrating on the sentence she was up to!" For such a child, reading aloud was a chore and her performance can give the impression of a lack of skill.

When reading for themselves, if unable to guess a strange word, early

readers were reported as either asking someone or skipping over it in the hope of understanding the meaning from the context. Three-quarters stressed the child tried first, and only came to the parent as a last resort. It seemed 'sounding out' was not a viable option for many children, as half the mothers reported that they always had the child sound out unknown words. Most seemed to rely on both visual and auditory memory, which in most cases were superior. One parent said she only had to read new material once to her daughter and the child could read it back word perfectly.

Early recognition of words was prompted both by stories read to the child plus environmental print. In fact every parent spoke of words being recognised in streets, in the supermarket or from television, especially the commercials or programme titles. As all older siblings, except one, were learning to read also, parents were frequently helping the older child when the younger one decided to begin to learn to read, invariably surpassing the older child. Parents found it very hard to pinpoint both actual starting time for reading and reasons for the early reader's interest and proficiency in reading, yet the picture of interaction between parents, early reader and siblings was impressive in terms of games devised by parents or child, number of stories read by parents, resources provided and time spent answering questions or explaining, often far beyond the questions asked. There appeared to be two strong forces operating: the child's incredible motivation to learn to read, and a rich reading oriented environment provided in the home.

Several children memorised stories, and all children were read to by one or both parents, almost all at least once a day, beginning from between twelve and eighteen months. One child was described as stopping breast feeding to listen as the mother read to his older brother. Story tapes and books following the tape were mentioned in six families and this

activity appeared to be heavily used, even up to one hour per day at some periods. One mother reported her child had memorized both sides of a tape. Parents bought puzzle books, maze books, word games (especially one commercial game in which individual words are interlocked to make sentences, by four children) and of course a multitude of books. As well, half the parents made matching games with pictures and words, alphabet cards, labelled rooms and played card games such as UNO[16]. involving numbers and a few words. An older sister's word pocket was 'taken over' by the younger brother, and so many words were added as he learned them very quickly, the parents decided to throw away the bulging pocket and introduce him to books. One child became very tired of asking directions for puzzles in a work book and soon worked out the instructions for each page. At least one-third of parents stressed that they did very little in the way of specific reading activities. Of the six children reading at seven and eight year level, four had not had such formal reading activities, while six of the seven children reading between nine and twelve year level had been directed by parents to activity books, cards or reading games. In one case activities were provided mainly by a slightly older sister who had read at three years of age.

The overwhelming impression gained from the interviews was the driving ambition of these young readers to succeed at the task of reading they had set themselves, and they usually involved the whole family in the process. As one mother said," He wanted to do it. I didn't set out to do it like that, it just happened. If he'd not wanted to, I'd have found plenty of other things to do. He was so keen I just found myself doing these things with him." She was speaking of the word pocket referred to earlier, word games played around the table at meal times, and the supplying of word cards at the request of the child, who loved rearranging them to make funny sentences. Neither parents of this child had ever read anything on teaching reading, neither had continued with their own

education beyond school.

Writing

By three years of age, four children were already interested in writing, usually beginning with their name, followed by the names of family members and simple three letter words. Many began copying from books, others wrote words as the mother spelt them out, either phonically or with letter names. Most parents spoke of the child knowing the alphabet from a very early age, often two and a half to three years, seemingly through a combination of Sesame Street, picture dictionaries read to them and help, verbally and with cards, by the mother. Several used their knowledge of the alphabet to write simple words for themselves. Several had blackboards, but for all except the child with very poor fine motor skills, paper and pencils loomed almost as large in the environment as books. By school entry (Kindergarten) half had begun simple sentences, in note form to parents, or wrote stories, often with invented spelling. Two parents said the child was loath to write words unless they were correctly spelt. Almost half copied from books and usually asked the mother to interpret. Five parents reported their children preferred drawing, especially detailed pictures, often copied again from books. One child specialized in meticulous car designs, showing the different elevations in scale (both parents were designers). This child was spurred into reading by his desire to understand captions and labels on car drawings in books. Printing was generally a mix of upper and lower case letters, gradually becoming more uniformly lower case with schooling. Parents were divided equally on correction of any reversals. In almost all cases, the interest in writing or drawing in some form appeared at the same time as the interest in reading, though for two early readers, it preceded it.

Overwhelmingly, help with reading oriented activities came from the mother (ten) and/or siblings (four). The father contributed significantly

in only four families. While six mothers were teachers, they stressed the initiative of the child, and that help was casual, very much 'on the run between household tasks', offered only when asked. However many parents also elaborated on questions asked or led the child onto new activities which contributed to his growing strengths in reading.

It was difficult to ascertain any significant differences between early readers and their siblings simply because so many brothers and sisters were also showing such an interest in understanding the written word. Parents did refer to the early reader more often as quiet, engrossed in tasks, fascinated by writing and drawing and quite capable of 'playing', including reading, for long periods alone. Their leadership qualities were also frequently referred to, though in this area it appeared the child was either a 'natural leader' or a very retiring child, who consistently preferred to either give in completely to others or play alone (four children). Reinforcing research by Clark and others, a good memory for both precise details of past events and for words was mentioned often in relation to early readers.

Play with Other Children

About half the subjects were said to prefer playing with older children, the remainder happy with their peers or adults. Many played quite happily with younger siblings, especially imaginative games. Three children preferred adults. At least ten parents gave reading, writing or drawing as the favourite activity of readers, which they did by themselves, with older or younger siblings or with parents. Several had established a pattern of reading to themselves every night in bed. Other activities quoted as occupying large amounts of children's time were imaginative and fantasy play, often involving dressing up and acting out stories read, as well as lego blocks. Only one parent reported the child as totally uninterested in role play of any kind, and this home,

because of parents' religious beliefs, was without a television or a radio. These parents were rather dismayed that the child had been given a reading test at school and refused permission for an IQ test. This was the only child with so little acknowledged input from parents, and he seemed to have learned from his older brother. Resources such as any form of reading games or even print appeared to be scarce in this home, and reading was not 'done' to any extent by either parent. When the mother was asked whether the child read at home she commented,

"He doesn't sit with his nose in a book at all, he's not a bookworm."

More than half the parents described the child as quiet, serious, often preferring to retire and play alone when games become very boisterous. Children also preferred drawing, reading, lego, cooking with mother or imaginative games, to much outside play involving gross motor skills. Several also consistently played board and card games with parents and other family members. One child taught herself to play piano by ear, and the previous Christmas had 'worked out' most of the common Christmas carols.

All but one child watched television from very little to about four hours each day. Five parents referred to their child's lack of interest in television, increasingly so as the child became a more fluent reader. Perhaps the most important aspect of television watching was the selectivity of children, as encouraged by their parents. Approximately two-thirds of parents reported disallowing anything they felt was unsuitable, but almost all noted the increasing selectivity of the child, by either switching it off or leaving the room to (usually) read. One child who watched at least four hours of television a day, often sitting up till quite late, also had access to a video, which he used as a teaching tool, stopping it or rewinding it to copy passages of writing or drawings. In this family the child was the only 'reader'.

Starting School

Few parents informed the school that children could read, and teachers in most cases were totally unaware of the proficiency of the child. Few had had opportunities to read in Kindergarten, though this may not have been due to the programme. Two very gifted readers in the same Kinder refused to read in school until third term, when a new child came to the class who was used to reading to all around him. These two joined very happily with him and read daily together. All teachers except one seemed delighted at the children's progress, considering it a tremendous asset to have such a talented reader in a class of beginners. Only one commented,

"Just because he's reading doesn't mean I'm going to do anything different with him. He has to do the same as everyone else in the class."

Approximately half the children 'loved' school, the others seemed at least adequately interested. Several parents made comments such as, 'says it's too easy', 'can't understand why she can't be in Grade two with her older friends', 'often says she is bored'. One mother was very disappointed at the level of work in both maths and reading, saying her child had covered it at home twelve months ago.

The final question to parents regarded their philosophy of education, or more specifically, the relation they saw between school and home. The overwhelming response was encouragement and support for school, and especially the need to praise everything done at school. Three-quarters, however, also felt the need for parents to take a very active role in education and not to expect the school to do it all. Many felt it important to continue to tutor the child informally in reading, writing and mathematics, as well as extending their interests in the world around them. One family was unsure about how to continue helping the child, now she was reading at such a high level (ten year) and two other

families expressed a lack of confidence in the school system, and the need often to supplement, especially basic skills instruction, at home.

Clearly these children are entering the school system with an extensive background understanding of not only the reading process but also maths, writing and the environment. Many children tested, not reading at the required seven year level, were recognising words and simple sentences. With the influx of cheap, good books such as the Picture Puffins, especially through book clubs in schools, as well as involvement of parents in, for instance, conference writing and story conferencing in schools, this trend towards early literate children is likely to increase.

Although comprehension was not tested, and would most likely have not been commensurate with reading scores, especially the higher scores of eleven and twelve year level, it was clear children had rapidly developed an understanding of print and how they could use it as a means of enjoyment and information. Prose passages were usually read with proper intonation, and sometimes content matter was commented on by the child. It is unfortunate more time could not have been spent examining in more depth the language development and language experiences of the early readers studied, especially in regard to the kinds of oral material they preferred and memorized, for example nursery rhymes, songs and parts of favourite stories. This information may have contributed to a greater understanding of the importance of the pre-literacy 'skills' of auditory memory, discrimination and recall.

It was significant that teachers in the less 'privileged' areas expressed the most surprise to find children reading at such high levels: seven, eight and eleven year levels, especially as all had spent the previous year in Kindergarten at the same school. Teacher expectations were much higher in the higher socio-economic areas, and it was also

noticeable from one school in particular which contributed three children, that teachers were more aware of reading levels of the children already. Perhaps parents were more vocal and more confident in alerting the school to their child's progress. Whatever the reason, this school, following the expectation of reading success, was correspondingly ready to extend these fluent readers rather than incorporating them into the usual pre-reading and simple beginning reading programme common to early Prep and Grade one.

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CHAPTER 6 : EARLY READERS AND THE READING PROCESS

In all literate societies, almost all children are exposed to an exceptionally wide range of literacy phenomena. Even parents who are not book oriented will buy labelled goods, look at price tickets, watch television, receive letters and have advertising material pushed through their letter boxes. There is, however, little evidence that simply immersing young children in a print environment will result in literacy. (Torrey's 'John' is one of the exceptions.[1.]) Most studies of earlier readers, that is children reading without formal school tuition, uncover facilitators in the way of parents, siblings or other relatives who have provided reading 'models' and thereby have conveyed to the child the usefulness of reading. It is assumed that, because of the unique conditions of home learning, devoid of any pressure or concentration on 'word attack' skills, devoid of any reading schemes or of any idea of reading as a 'subject', early readers in the home pursue reading purely for its usefulness. Once children become literate, studies show they do use reading both as a form of entertainment and as a medium of instruction, an added mode helping them to understand especially their immediate environment.

Undoubtedly much investigation is needed into the nature of, and reasons for, this motivation in very young children to apply themselves so successfully to such a supposedly complex and long term goal. Over the last two decades, researchers in the separate fields of child development, special education, educational psychology, psycholinguistics and reading have each contributed to a much wider theory of how children learn to read, focusing on the fundamental importance of children's ability to understand and to reason about the communicative functions of both reading and writing. As educationalists attempt to translate these theories into

classroom practice, attention has been directed towards characterizing the capable reader in an attempt to understand the successful reading strategies employed. Research confirms, not only that some children can master the reading process at a very young age, but they generally continue to be very capable readers. (Clark, 1976,[2.] Sutton, 1969,[3.] Durkin, 1966, 1974[4.])

To Downing,[5.] the critical factor in developing reading skills is a clear understanding of the functional and featural concepts of literacy. He employs the term 'cognitive clarity'. The Bullock Report[6.] recommended that from the earliest stages of learning to read, emphasis should be placed on 'purpose, meaning and pleasure' and that children should learn how enjoyable and useful reading can be before they begin to read. In a similar vein, Reid[7.] asserted that "Before the actual learning of the code begins, the child must see something of the nature and aims of the task." That is, the child must initially learn that print is meaningful, it must tell the child something. John Carroll[8.] points out the importance of learning the function of print:

> We can make more use of the practice of filling the child's environment with a full variety of printed stimuli, making sure, however, that they are also interpreted for the child."

Frank Smith speculates how the child might develop such an awareness:

> "I can think of only one way in which the first insight that print is meaningful might be achieved, and this is when a child is read to or observes print being responded to in a meaningful way. At this point I am not referring to the reading of books or stories, but to the occasions when a child is told, or hears, 'That sign says "Stop".' 'That word is "Boys",' ....'There's the bus for downtown.' Television commercials can do the same for a child - they not only announce the product's name, desirability and uniqueness in spoken and written language, but even demonstrate the product at work." 9.

Smith believes that this responding to environmental print is the basic way children come to understand the functions of written language. This is borne out by Torrey's[10.] early reader who memorized television

commercials and recited them as they appeared on the screen. In fact environmental print has played a large role in all studies of early readers cited previously, as children constantly questioned, received answers and recited signposts, food labels, addresses and television captions.

Many children copied from familiar story books then asked parents to interpret. This supports Hall's[11.] view that as children see spoken thoughts put into written form, they can understand the nature of reading. The child learns to associate spoken and written language as related and interdependent. Payton's[12.] case study of her daughter Cecilia's progression towards reading is really an account of Cecilia's active endeavour to obtain meaning from surrounding print, that is "....Cecilia's realisation of the potential of print both in situational contexts and in her own beginning attempts at writing."[12.]

Francis[13.] found that success in reading was likely to evolve from an understanding of the concepts of letters, words and sentences, and of the idea that the spoken word can be represented in print. Many children are confused in the classroom when these terms are used by the teacher in the early months of Grade one. Read describes her work in this area:

> "As well as finding puzzlement and ignorance about the existence and functions of written language, I and others found some very marked gaps and confusions in children's vocabulary for talking about print...They called letters 'numbers', or 'words', they called words 'names' or 'the writing', they called sentences 'stories'. 14.

In contrast Clark found a high degree of understanding by early readers studied, of the terms, word, letter and sentence, many giving examples of each if unable to manage a verbal explanation.[15.] Thus reading readiness takes on a new dimension, quite apart from the more usual visual discrimination exercises,

> "....the most relevant preparation for reading... consists...

> in being helped to see what written alphabetic language looks like, to learn the conventions by which it is set out, and to discover how it is used." 16.

Clay points out that some children are still uncertain about featural concepts after months of tuition, and formulated The Early Detection of Reading Difficulties Diagnostic Survey,[17] a short, easily administered check on how many of the technical terms in reading a child understands.

A longitudinal study by Wells and Raban[18] confirms the importance of these features of print. They found the best predictor of attainment in reading at age seven to be the child's understanding of concepts of written language on entry to school. This conclusion is supported by Downing's[19] studies. Donaldson hypothesizes that many children have problems learning to read because they do not realize the flow of speech can be broken into separate words, adding that "this realization is indispensable if they are to deal sensibly with grouped and spaced marks on paper, which they must now come to see, correspond with the spoken language."[20]

This understanding must surely be facilitated for children reading at home by their early writing efforts. Several mothers in the Hobart study reported sounding out words for children to write down, children wrote notes to caregivers, copied from books and asked the parent to interpret, others wrote lists. As early childhood educators encourage children to record their experiences in writing, they foster the understanding that reading is "talk written down". Many researchers regard the 'pencil and paper' factor as very important in leading early readers (and others) to the point of 'reading'. Gibson, in her article, "The Ontogeny of Reading",[21] argues that reading begins in part in the infant's scribblings and later attempts at writing.

Following Montessori's lead, Carol Chomsky proposes that by

inverting the usual 'read then write' sequence, children are able to actively teach themselves to read. Chomsky believes that a child can learn in a more active way by using invented spellings of meaningful words, which a child then learns to read. These words reflect the child's own linguistic organisation, punctuation and experiences.

> "What better way to read for the first time than to try to recognize the very word you have carefully built up on the table in front of you?" 22.

Durkin found that half of the early readers studied were also early writers, whose interests in writing preceded, or occurred simultaneously with interests in reading. Durkin suggests that these early writers must have learned to read through a truly 'language arts' approach:

> "For these 'pencil and paper' kids, the learning sequence moved from a) scribbling and drawing to b) copying objects and letters of the alphabet to c) questions about spelling to d) the ability to read." 23.

Parents helped with letter sounds, and the early writers often copied words and sentences as lists or directories. One child in the Hobart study copied from television, stopping the video machine at the appropriate frame. According to both Durkin and Chomsky a point is reached in the understanding of the young child when the writing process is internalized and the child begins to read. Although the actual internalization process remains unexplained in research, it seems to be the key point in the reading process for these children. For many children this multisensory approach appears highly successful, with one developing skill in the language context reinforcing the other.

The experience of being read to features prominently in the histories of early readers (Plessas and Oakes 1964,[24.] Sutton 1964,[25.] Durkin 1966,[26.] Gardner 1970,[27.] Clark 1976,[28.] Bissex 1980[29.]) and has been found to be positively related to academic readiness and success with beginning reading in school. (Almy 1949,[30.] Durkin 1974-75,[31.] Briggs and Elkind 1977,[32.] Wells and Raban 1978,[33.] Wells 1981, 1982.[34.])

> "...eventually the child must go beyond his own words and speech patterns and become familiar with the language of books".[35.]

Frank Smith[36.] argues that being read to is a significant contributor to an understanding of the functions and structure of written language. Written language is not simply a graphic means of depicting speech. It is isolated from the situation of the child, and differs from speech in vocabulary, syntax and degree of explicitness, it is more abstract and concise. Sartre recounts the first time he had a story read to him, and the effect it had on him. His mother had previously told him stories orally.

> "I grew bewildered: who was talking? about what? and to whom? My mother had disappeared: not a smile or trace of complicity. I was in exile. And then I did not recognize the language. Where did she get her confidence? After a moment I realized: it was the book that was talking." 37.

Children learn through books that print can become speech, that a message is recorded, as well as becoming aware of the different language registers of written language. Clay[38.] has noted that the ability to "talk like a book" is an important indicator of the child becoming aware of the written forms of language. Children learn the ways in which print is used to mediate every day activities as the parent reads out the instructions of how to assemble a new train set, or the television programme is consulted together to see if a favourite programme is imminent. Basic concepts of directionality, of orientation of letters or even where to begin a book and the nature of the title page, are all conveyed as the child listens. Attitudes towards reading are formed. As Hiebert (1981)[39.] suggests, role models are important in the process of becoming a reader, and book reading episodes can afford the child an opportunity to see trusted adults engage in and enjoy the experience of reading. Many of Clark's early reader parents speak of the rapport established through the sharing of books with the child, and the secure enjoyable atmosphere which pervaded the experience. Holdaway[40.] lists

motivational factors first in his characteristics of a well developed set towards reading. Children develop high expectations of print, they seek book experiences, ask for stories, go to books independently and frequently experiment with producing written language.

A positive correlation has also been found between vocabulary development and being read to, by Chomsky (1972)[41]. Fodor (1966)[42]. and Ninio and Bruner (1978).[43]. Children are learning about the structure or grammar of stories, are becoming familiar with certain literary conventions and as this understanding is gradually increased, so comprehension gradually reaches a higher level. As a knowledge of syntactic features of language develops, so uncertainty of meaning is reduced, and the child becomes more fluent. She/he knows what to expect in stories. Clark observed that

> "the more a child has become sensitized to the structure of written language, the more he is likely to make appropriate anticipations when reading for himself." 44.

She hypothesized that frequent repetition of stories may lead to an improved ability to predict one's way through print by anticipating the correct word or words. So in the 'psycholinguistic guessing game'[45]. the child, by part reading, part remembering and part guessing finds she has sufficient non visual cues to 'pick up' what she cannot decode. The sympathetic adults, by reading to her and by answering questions, so provide confirmation of her hypothesis about the printed word.[46]. Thus the child moves via books, from an understanding of the sequence of events in his own daily experience to unfamiliar situations, and begins to accomodate the world of fantasy, which initially is so alien to the very practical two year old. Once understood, once the sense of story is developed, the child happily enters other possible worlds, so further enlarging his understanding of his own.

It is surprising that so little research has been conducted on how

the book reading experience is conducted by chiefly the parent, most investigations content to examine whether, and to what extent the experience actually took place. Recently Ninio and Bruner (1978)[47]. have shown that social organisation and language aspects of reading to children varies significantly, depending on the material being used, the age or developmental level of the child and the sociocultural backgrounds of the participants. As the child neared three years old, Hearn found the feedback, the questioning and the labeling was discouraged, and children

> "...listen and wait as an audience. No longer does either adult or child repeatedly break into the story with questions and comments. Instead children must listen, store what they hear, and on cue from the adult, answer a question." [48].

This pattern was observed in homes of middle class primary school teachers, who had preschool children. Other researchers list variations in social interaction and language features of book reading with children, (Snow and Goldfield 1982[49]., Taylor 1983[50]., Harkness and Miller 1982[51].)

> "...factors such as type of text, number of times the book has been read.....number of children involved in the reading, and the temperamental characteristics and sociocultural backgrounds of the participants, as well as the age or developmental level of the child, affect what happens when parents read to their children." [52].

Schickedanz[53]. also feels that letter-sound associations can be learned from the story reading situation. As the child hears a favourite story repeated several times she is able to memorize it, then gradually recognizes certain words in books because parents have pointed them out or they associate them with pictures or other clues. Gradually specific letter-sound correspondences and patterns of correspondence are observed until the child is no longer dependent on the story reader. This hypothetical behaviour or theoretical model is verified in studies of both Durkin and Clark. Durkin (1966) found that "stories which were read and reread were generally the ones that lead to such questions as

'where does it say that?' or 'what's that word?'"[54]. Memorization of story lines and the desire for repetition of stories is also frequently seen in both the Clark and the Hobart study. Despite the above persuasive argument for the crucial importance of sharing books with children, not all early readers have had this experience. Certain children in studies of Teale (1981),[55]. Durkin (1966),[56]. Clark (1976)[57]. and Torrey (1969)[58]. had not been read to in their early years. These would be worthy of further study. Nevertheless, despite this, there is overwhelming evidence that such experience does facilitate literacy development, particularly in the close one-to-one relationship in the home.

Throughout the majority of theories of how young children begin reading, the subjective role of the child is stressed. Torrey epitomizes this emphasis on learning rather than teaching when speaking of her case study of the black child from a low income family who was reading and writing by the time he was four years old.

> "Reading for John seems to have been learned but not to have been taught." 57.

Torrey also interprets Durkin's research on early readers:

> "The findings on the histories of early readers may be summarized by saying that they were not taught to read, they just learned in an environment that contained enough stimulation and material." 60.

Forester (1977),[61]. Smith (1976, 1978),[62]. Hoskisson (1979)[63]. and Doake (1981)[64]. also suggest that learning to read at home comes at the initiative of the child; it is 'natural' literacy development, children abstracting the essential features from the literacy oriented activities surrounding them. Teale [65]. proposes that such theories of natural literacy development, structured and controlled by the children themselves, are misleading. It would be more correct to say that becoming literate outside the context of formal schooling, is a process of both learning

and teaching, never one without the other. Vygotsky (1981)[66] agrees with this interaction theory:

> "... the very mechanism underlying the higher mental functions (such as reading and writing) is a copy from social interaction. All higher mental functions are internalized social relationships."

That is, children have internalized the literacy activities around them. This is not simply a reaction to the environment in the sense of stimulus-response theories. Vygotsky saw the individual actively modifying the stimulus situation as part of responding to it. The child's literacy environment is not separate but part of the interactions which take place between the child and those around him/her.

> "Social interaction is the key. In fact, the whole process of natural literacy development hinges upon the experience the child has in reading or writing activities which are mediated by literate adults, older siblings, or events in the child's every day life ... such events serve an absolutely essential role in both triggering and furthering development." [67]

A second critical feature which surrounds reading or writing is speech. When children are only one or two years of age, although not reading or writing in the formal sense, they do take part in spoken language activities with the help of an older person. This process of learning to speak serves to heighten their sensitivity to both spoken and later written language, and the ways language can be used to both explain and question their environment. Clark found children in her study were exceptionally proficient in language use. Snow[68] describes three parental procedures which aid language acquisition. Moreover, Snow noted that reading acquisition at home can parallel the same social interaction system of oral language development. 'Semantic contingency' involves adults continuing topics introduced by the child, adding new information to children's utterances and answering all questions of these 'budding early readers', regarding print, pictures and text. They read stories

frequently as requested, aiding memorisation of favourite texts, which seems to bridge the gap between stories being read and stored in the mind of the young child, and retrieved at a later time when experiences provide more meaning. This may explain why many early readers documented prefer adult 'playmates', seeing in them the chance to expand and extend both language and an understanding of the literacy task. 'Scaffolding', Snow's second procedure, consisted of parents structuring dialogue, again both to develop oral language and to facilitate meaning of the printed word read to the child. Ninio and Bruner (1979)[69]. indicated that

> "scaffolding dialogue between mother and child ... obviously precedes the emergence of labelling..."

that is, parents posed questions usually prior to reading, during reading and after the story to help the child to understand the printed word, and to guide her gradually into taking over more and more from the parent. Hence the interaction becomes more akin to a dialogue. The 'scaffold' self-destructs gradually as the need lessens, and is replaced by a more elaborate construction, both print-wise and linguistically.[70]. 'Accountability' is Snow's final parental procedure. Just as parents of early readers frequently held their children accountable for adult speech patterns, deploring baby talk, so they also held children accountable for recognizing decontextualized print. Children were shown that STOP, GO, SCHOOL, EXIT were the same when written at home, or when made with plastic letters, as when placed on a road sign. Non-early readers differed in Durkin's and Heath's studies in that while parents in both often took part in children's play activities, quoting their enjoyment in these, parents of early readers frequently introduced the literacy element, relating what the child was doing, or family activities, to stories read and activities of favourite characters. These were often favourite characters because of contact points built up between the

experiences of the fictional character and those of the child.

Heath, comparing the backgrounds of early and non-early readers, in this case in different socioeconomic frameworks, found that in homes of non-early readers literacy materials were available, and book reading episodes were not infrequent. Teale summarizes Heath's findings:

> "However, the patterns of interaction promoted in the book readings were quite different.....Working class parents did not link book reading habits to other realms of experience, or bring aspects of literacy to bear on the child's non-literate activities." 71.

In documenting parental styles, Flood (1977)[72]. supported the importance of the kind of time parents of early readers spent in specific and systematic questions surrounding reading aloud to their children. Flood concluded that the style of reading to the child, not the book, is far more important in teaching a child to read, and involving the child in the story is very helpful. This is not to deny the extreme importance of the child's independent observations and explorations of and practice with written language. Holdaway's (1979)[73]. work indicates that children's individually conducted literacy activities, especially their independent reenactments of familiar story books which they have previously read with parents or older siblings, serve to develop several aspects of their abilities in reading and writing. Ferreiro (1984)[74]. found that as Mexican preliterate children struggled to understand the writing system of their culture, they evolved strategies which they had certainly not 'seen' adults using in the culture, but which aided their growth in literacy. Similarly, children as they attempt to resolve conflicts in the English spelling system, invent spellings which give them a command over the writing system not otherwise available if the correct forms were to be learned first.

Interactions between child and tutor serve in two ways to draw the child closer to an understanding of language skills of reading and writing.

They lead the child to see the functions, uses, processes and conventions of literacy in society and in the family in particular. As well, they are motivational for the child, strengthening the child's desire to engage in these activities independently. As it has been seen earlier in this chapter, these two factors reinforce each other. Sutton[75.] draws attention to the Russian term 'obuchenie', which is at the heart of Vygotsky's theory of development. Sutton and Teale[76.] both apply this term to the process of early reading acquisition. It means both teaching and learning, "both sides of the two-way process".[77.] As Sutton puts it, "not only do children develop, but we develop them."[78.] Thus, rather than because of what is done to them, as part of a planned, formal instruction, reading and writing are induced and extended by what is done with them, through modeling, questioning and encouraging:

> "Every function in the child's cultural development appears twice, or on two planes. First it appears on the social plane and then on the psychological plane. First it appears between people as an interpsychological category, and then within the child as an intrapsychological category." 79.

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CHAPTER 7 : READING AT HOME AND AT SCHOOL

Studies in this paper appear to refute arguments that because of the complex nature of the reading process and the fine visual and auditory discriminations required, children are unable to begin reading any earlier than the accepted school starting time. Studies of Durkin and Clark also seem to refute the assertions of the harmful effects of preschool reading, and even to support the belief that the earlier a child learns to read the more likely he is to excel in reading by the end of primary school, especially if his proficiency is recognized and enhanced by the school system.

Those who believe that children should not be encouraged to learn to read at an early age frequently quote play and creative activities, and further exploitation of the environment as among the experiences far better suited to the child of three, four or five. Similarly, if left, many argue, children will read more easily when six or seven. To many researchers and teachers there is no advantage in the long term whether the child begins to read at four years or seven. Most, if not all of the above problems with an early introduction to reading are based on a formal systematic method of teaching, such as has been found in schools in the past. Rarely has this type of instruction featured in any studies of early readers in either experimental school situations or in homes. Rather parents and researchers have shown a very different approach is vital to success. The pattern of 'home teaching' has been found to be one of incidental, frequently unintended exposure to print and response by the adult to the child's curiosity. Early reading becomes a by-product of the relationship between the child and the adult, rather than the goal, the enthusiasm and participation of the adult in the world of teaching acting as a stimulant, motivating the reader to pursue this behaviour

for himself.

Over the last thirty years in Australia many reading theories, and hence reading instruction methods, have influenced teachers and children in schools. These have changed from the phonic and look-and-say approaches, to the more recent emphasis on decoding. This involved many variations of the theory that reading is really a matter of 'cracking the code', that is, mastering the relationship between letters and their sounds. More recently, theorists have moved away from a reliance on visual elements of print, to an examination of the reading process itself, to what is happening in the child's mind while reading.

> "In essence the change is away from seeing reading as being simply a mechanistic process of matching sound units to visual units, towards a view of reading which stresses the cognitive and linguistic processes underpinning all literacy activities." 1.

Many also saw the need for a recognition of the relationship between all four language modes of reading, writing, speaking and listening.

The approach utilizing a mix of all four language modes has perhaps been most influential in schools and principles of this method of teaching were most often referred to by parents of early readers in studies previously cited. In this approach, the pupil's own language is the medium through which he learns to read, and this is written down and used as the initial teaching material, an alternative to the often stilted language of reading schemes. Ashton-Warner (1963)[2]. felt strongly that the first reading words must have intense meaning and be part of the child's own being. Early reading material is welcomed eagerly when it reflects the world of the child. This method, forming the backbone of most infant programmes in Australia in the 1980's, has been expanded to include conference writing, whereby children are encouraged to begin 'writing' as soon as they enter school, regardless of their reading skills. This may vary from scribbling for some to words, sentences

with 'invented spelling' or simple stories. Researchers, observing many young children learning to read without the constraints of a school programme, have noticed the close parallel between writing and reading, the former frequently coming first.

As studies of how children learn to read, as opposed to how they are taught, continue, several other theories have been documented recently and are having a considerable impact on the schools. In many of these studies early readers have formed the subjects. The psycholinguists have further reinforced the nature of reading as a search for meaning rather than a decoding exercise. Of these, Frank Smith and Kenneth and Yetta Goodman are very well known.

> "The psycholinguists emphasize the role of selectivity, past experience, the reader's expectations of the meaning of the particular text she is reading and her syntactic knowledge, in coming to terms with content." 3.

The reader looks out for distinctive features of print which help with meaning rather than looking at every letter in every word. The more fluent the reader, the less information is needed from the text to understand it. The Goodman's approach hinges on an interpretation of mistakes in oral reading, as they view mistakes not as errors but as a mismatch between the expected response, or what the word actually said, and the observed response of the child. They believe teachers need to be aware of reading miscues, as well as the extent to which the child can correct his own miscues without interference. The psycholinguists believe that literacy can be learned as a natural language process in the same way as oral language. Studies of young fluent readers have contributed extensively to this theory.

Seeing reading as a developmental process, Clay (1979) labels the early phase of reading as the 'emergent reading phase'. Children become aware, usually before school, of print in the environment and its functions.

From this they gradually reach an understanding of the visual aspects of written language, the conventions of a word, a sentence and hence the beginning of word recognition strategies. Finally the integration of the features of print, an understanding of the syntax of language as well as the expectation of the message, merges, and the child becomes a reader. Holdaway (1979) refers to the above as the establishment of a 'literacy set'. The approaches of Holdaway and Clay emphasize reading for meaning as opposed to a reliance on a skills based programme, as well as a shift of emphasis from sequential reading schemes to good quality children's literature as a basis for instruction. Children choose their own books to read. Children are also guided to use not only graphophonic cues in reading, but to also utilize cues such as existing background knowledge and grammatical competence as aids to an understanding of written language. Paralleling findings of most studies of early readers, writing is encouraged as soon as children enter school, with attention focused on the developmental nature of writing from scribbling, through invented spellings to conventional stories. Children are encouraged to write in order to convey meaning to an audience. Spelling is viewed as a tool of writing rather than an isolated subject on the timetable. In order to help children along the pathways of reading, writing and linguistic development, teachers use their knowledge of the developmental steps to diagnose where each child is, and to plan future experiences based on that diagnosis. Such evaluation as the miscue analysis of oral reading and the collection and evaluation of written work replaces previous standardised tests of reading and spelling.

There is a danger in transposing to the school any aspects of a 'method' which has succeeded in the home with early readers. The two environments are so totally different, and the bond between parent and child very dissimilar to the relationship between teacher and pupil.

It is understandable that many researchers have considered the early reading process to be 'as natural as that of learning to talk', for it has been a natural process for the young readers. However, these readers have had the advantage of a gradual induction to the written world over a period of four or more years, facilitated by a parent or sibling on often a 1:1 or 1:2 basis, the affective bond between the two making the role model for literacy much stronger than anything the child could encounter outside the home. The term 'natural readers' has been popularly used by Smith (1976, 1978), Goodman & Goodman (1979), Forester (1977), Torrey (1969) and Teale (1982). It is implied that if correct conditions are provided in the classroom the child will read as a natural progression. Smith (1976) believes that, while reading cannot be formally taught, if the scene is correctly set the child will learn spontaneously. The teacher becomes the facilitator and the guide, who modifies circumstances, responds to the child's needs and makes reading meaningful. This is exactly how many early readers have come to literacy in the home. Nevertheless, reading remains, unlike speaking, basically an artificial, cognitive skill which will take considerable time to come 'naturally' to a five or six year old who has had very minimal contact with print prior to school entry. A gradual induction in the same manner as the home experience may take two or even three years, by which time peer group and parental pressure may have combined to undermine the child's self-confidence and enjoyment with learning to read. A balance is needed between the slow, freer atmosphere in the classroom where children choose their own pace and the rigid, formal skills based method of teaching, best left in the past. Many children because of background experiences and personality appear to thrive on a certain amount of direction, preferring to be guided into what to read or write until they gain enough confidence to take these tasks over for themselves.

Writing forms a major component of the pathway to literacy in schools in the 1980's, but not all of the early readers were either interested in or successful at writing, some avoiding it completely. For these children the strong emphasis on daily writing and conferencing may stifle and frustrate when they may prefer to give more time to reading itself. There is a need to respect different styles of learning and strategies employed by especially young children as attitudes to learning formed at this age are crucial to subsequent school progress.

Similarly the miscue analysis, while successful with many, may not be an accurate indication of the problem areas for some children, especially those who dislike the chore of reading aloud unless it is for a purpose, for example, reading a story to the class. It is also necessary to bear in mind that there are many graded series designed in a natural language style, which do contain much commendable material in an enticing format, especially for the child who is hesitant about meeting much new vocabulary at once. He may be more comfortable with a few progressive changes. Many beginners also feel the need for the security of a sequential scheme, with predictable patterned stories which enable them to anticipate both storyline and vocabulary, at least until the reading skill is sufficiently developed to successfully tackle ungraded picture books. Van Lierop[4] quotes a case study of Sonia, an early reader who was reading fluently at four. She had a rich literary background, but when she met the Ladybird reading scheme at four and a half, she was so fascinated with the characters and the stories she read the entire series at once, from 1a to 12c.

As the model of home learning is brought into the school situation, it becomes clear that when dealing with neurological functions of the human brain involved in reading, it cannot be presupposed that all children necessarily learn to read in one particular way. As Teale (1982)

and Vygotsky (1978) hypothesize, the social relationship between the parent and child is crucial to the learning which takes place between them, as the parent encourages, explains and weaves an understanding of print into the games and activities the family can engage in together. This relationship is not duplicated in the school. Experimental studies of early readers document very diverse methods of 'teaching' young children, ranging from a language modes approach (Durkin - 1974), informal teaching of readiness skills (Brzeinski - 1964) to a talking typewriter (Moore) Programmes in the home are as diverse, though much less structured. More research needs to be undertaken on the difference between reading programmes for the four year old and the six year old. There is the question of the transfer of reading ability from familiar to unfamiliar texts: how do children arrive at this ability to recognize words in varying contexts? Are whole words or phonic elements transferred? Unfortunately few of the reports of early readers give any information about the extent to which they seemed to be using phonic cues. In research cited, a number of parents mentioned having told their early readers 'the sound of the letters', although none mentioned that the child used this information.

We know little of the special characteristics or skills a child brings to a story reading situation, which enable that particular child to learn to read. Are these skills inborn or acquired? Is there an innate capacity to frame experience in terms of a "story", a skill which children exercise as they search pictures for meaning? Does an early start really make a difference to later performance in school, or does the advantage lie in attitudes developed towards print? Studies examined show positive correlations between early learning and later success, but research is neither comprehensive enough or sufficiently methodologically sound as yet. Social and emotional effects of early reading have been

little investigated, and similarly, except for the Durkin study, it has not been established which children benefit most from early instruction. Especially worthy of further investigation are children such as those above-average achievers found by Durkin, Torrey and Clark, who have learned to read with very little input from the family, some not having ever been read to by parents or siblings.

How do children become oriented towards literacy, and how do their perceptions of the purpose of print develop as they move towards becoming more fluent users of print? What is the extent and rate at which children develop concepts about the nature of literacy? Most research of early readers focuses on questions of socioeconomic level and early experiences which researchers expect to be relevant. There is a need for more time to be spent observing what children actually do when beginning to read, their spontaneous behaviour in free situations, and less time on their responses to predetermined questions which may have little relevance to the emerging skills.

The question of whether children should learn to read earlier than six years has become irrelevant with its connotations of a formal skills based instruction programme, progressing sequentially in a straight line. Because of investigation into how children read, and facilitating conditions surrounding the process, all children whether they are two years or six years old, at home or at school, can benefit from some form of introduction to written language. The definition of beginning reading has widened to include hearing stories read, using pen and paper to write a story or being helped to recognize which packets the parent needs in the trolley at the supermarket. Children vary in most traits, and it is expected that some children will be ready to read, that is, to recognize and respond to written language, much earlier than the majority. It is also possible if techniques are appropriate that many more children can begin earlier

to understand the meaning of print. It would be a mistake to assume that the environment is the only contributor to reading achievement, especially as many other factors enter into the complex development of language skills. However, the environment plays a very important role, and the more conducive it is to learning to read, the more responsive to the child, and the closer the match between encounters with print and the interests of the child, the more reading will be encouraged and enjoyed.

> "... whatever native abilities and motives may participate in the development of reading, the right kind of environmental stimulation can elicit a similar response in a much larger number of children with lesser degrees of those traits." 5.

The overriding facet of any contact between the very young child and literacy is the need to keep participation voluntary and devoid of the slightest pressure to perform. For children in studies of Durkin and Clark, like children in the Hobart study, reading has been a process of slow induction from a very early age. These children have gradually learnt that print has meaning, it is relevant to them, and above all, it is not a mysterious process, but something with which they are already very familiar.

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APPENDIX 1: ORAL PRACTICE (Edwards Reading Test)

The Red Car

The boy saw a car.
The car was red.
It had four doors.
A man was sitting in the car.

APPENDIX 2 : EDWARDS READING TEST

6	7	8	9
one	book	city	future
not	when	wild	number
can	year	two	water
we	today	frighten	decide
look	people	direction	accept
baby	tree	dream	event
little	picture	several	fate
will	other	animals	warrior
his	still	attack	soul
school	town	many	convoy

10	11	12	13
amazed	foreign	abolish	account
develop	original	deprived	limitation
grim	orchestra	visible	combustion
splendid	pyramid	register	antique
croak	verandah	impetuous	language
improve	routine	savage	conscience
witness	bridge	astonished	intrigue
million	apparatus	daunted	preliminary
shallow	myth	prey	migration
recent	opportunity	university	binocular

APPENDIX 2 (CONT)

ORAL 6

The Kitten

Mother found a little white kitten.
It had a small black mark.
Mother told father about the kitten.
They said they would call it Spotty.

ORAL 7

Farm Life

Tom was a boy who lived on a farm. He liked to help his father milk the cows and care for the horses. One day, Tom and his father went for a ride in a horse and cart. They visited their friends who lived on a farm not far away.

ORAL 8

Animals and Their Food

All living creatures must eat food to live. The earthworm eats soil as it moves under the ground and from the soil it gets food.

Most birds eat seeds and insects. Their beaks are shaped to eat these types of food. Birds that eat meat have sharp beaks and claws.

ORAL 9

The Blue Whale

The great blue whale is the largest living animal in the world. It can grow to a length of over thirty-three metres. It often weighs as much as one hundred cars. When a whale comes to the surface to breathe it blows a stream of spray into the air.

ORAL 10

The Escape

Ken shone the torch ahead of him in the tunnel and called softly to John. He did not want to call loudly, for the sentry above him might hear and sound the alarm.

When Ken reached the end of the tunnel he saw John putting the sand into several buckets. The two men quickly dug through the remaining two feet of sand. Soon they were free!

APPENDIX 2 (CONT)

ORAL 11

The Big Match

The two tennis players faced each other on the court. Peter, the big youngster from Australia, won the toss and said he would serve first.

His first service thundered down and his young, much smaller American opponent, Mike, lunged quickly at the ball. After a long rally Peter won the point and went on to take the first set. However, Mike fought back and won the second set.

Everything was ready for an exciting end to the match but in the third set rain fell heavily and the game had to be postponed. The large crowd wondered who would finally win.

ORAL 12

Meteors

Millions of meteors, ranging in size from specks of dust to huge masses of rock, travel through space. On a clear night you will often see a meteor moving through the sky.

Very rarely, a great meteor crashes into the earth. When this happens it is called a meteorite or a "fireball". In 1908 a great meteorite fell on Siberia and exploded with a roar that could be heard for many miles. Trees were destroyed and over a thousand reindeer were killed.

Luckily this does not occur often because most meteors burn up in the atmosphere that surrounds the earth's surface.

ORAL 13

The Roman Empire and Christianity

The Roman Empire had a great effect on the development of civilization in Western Europe. Many of the tribes who were conquered by the Roman legions adopted their customs and laws. In particular, the Christian religion grew in importance throughout Western Europe.

Christianity had been adopted by the Romans in the fourth century when their Emperor became a Christian and gave freedom of religion to all Christians in the Roman Empire. By the end of the century, Christianity was the only legal religion in the Empire and it continued to flourish even when the great Roman Empire began to fall.

* Type size decreases in Edwards Reading Manual with increasing difficulty of prose passages.

APPENDIX 3 : DANIELS AND DIACK GRADED SPELLING TEST

1	on	11	the	21	ship	31	eye
2	hot	12	go	22	food	32	fight
3	cup	13	for	23	fire	33	friend
4	van	14	so	24	thin	34	done
5	jam	15	me	25	date	35	any
6	lost	16	are	26	chop	36	great
7	sit	17	of	27	seem	37	sure
8	plan	18	do	28	dart	38	women
9	mud	19	who	29	loud	39	answer
10	beg	20	here	30	form	40	beautiful

APPENDIX 4 : IQ RANGE AND READING LEVELS

IQ	READING LEVEL
118	11 year
123	8 year
128	10 year
130	7 year
135	10 year
136	8 year
136	9 year
141	10 year
145	11 year
147	8 year
148	12 year
155	7 year

APPENDIX 5 : PARENTAL INTERVIEW [1].

"He" is used throughout, although the same questions were asked concerning boys and girls.

1. How long has he been reading in the way he does now? What was his age at that time?

2. What does he like to read at the moment? (fiction, non fiction, comics, newspaper, adult books, everything, other)

3. Where does he get his books? (School, public library, bought, other)

4. Does he belong to a library (other than a school library)? Yes/No
   a) If so, when did he first join?
   b) How often does he go to the library?
   c) Does he choose his own books or get help?

5. Does anyone read to him now?
   a) If so, who reads to him?
   b) What do they read? The same books that the child reads, or different ones?

6. What does he do if he comes to a word he does not know?

7. Do you suggest books he would enjoy, or does he choose his own, to buy or borrow?

8. How old was he when he first started to try and read?

9. At what age did he first show an interest in written words and numbers?

10. How did he first start to read?
    a) by interest prompted by mother in flash cards or alphabet and sounds, in word or alphabet games?
    b) by interest in observing a sibling or friend learning?
    c) by interest in parent or sibling reading aloud?
    d) no apparent interest as above but started on blackboard and letter sets or books or comics, or signs or kitchen packages?

11. What were some of the things that interested him in learning to read? To gain information? To emulate siblings? To read posters, packets, etc? Watching television? Nothing specific?

12. What kind of materials did he use? Books/ signs/ papers?

13. Did you ever buy books you thought would help?
    a) What kind? Picture books/ story books/ reading scheme/ other.
    b) When was he first helped?
    c) What form did the help take?
    d) Who helped mostly? Mother/ father/ sibling/ other?
    e) How often did they help?
    f) Was the help regular or irregular?

APPENDIX 5 (CONT)

g) What kinds of help? Told words he asked? Comprehension checked? Pictures discussed? Reading games? Letter sounds taught?

14. Could he write when he first started school?
   a) At what age did he first show an interest in writing?
   b) At what age did he first write?
   c) How did he first start? Copying letters or words? Writing name? Taught at school? Other?
   d) What kinds of materials were used? Paper and pencil/ blackboard/ plastic letters?
   e) What kind of help was given? Show how and hand held/ errors corrected/ encouragement only?
   f) Did he use capitals or lower case?

15. What kinds of activities did he seem to do best at preschool? Pencil and paper games and painting/ reading/ manipulative games/ sport and active games/ imaginative?

16. With whom did he play mainly? Children of his own age? Younger or older children? Siblings? No-one?
   a) When playing with other children, what did they do? Pencil and paper games and painting/ reading/ manipulative games/ sport and active games/ imaginative?

17. Did he prefer to spend his time with adults or children?

18. Did he attend a creche, playgroup or preschool?

19. Have you read any books about teaching children to read?

20. Do you feel that his interest in reading was initiated by himself or that you encouraged him to make a start? By child/ by parent

21. How did the school react to the child's reading?

22. How interested is he in school? Is he having any particular problems?

23. Have any of your other children read before starting school?

24. Are any of the younger children showing signs of early reading?

25. Did you or your husband read before starting school?

26. Do you feel you and your husband read more than average, average or less?
   a) What kinds of books do you like to read?

27. How old were you (mother) when this child was born?

28. How old were you when you left school?

29. How old was your husband on leaving school?

30. What level of examinations did you pass? School Certificate, Higher School Certificate, Matriculation, Apprenticeship, Vocational, University, Tertiary College? (Mother and father)

APPENDIX 5 (CONT)

31. What is your husband's work?

32. What was your work when you left school? Did you work after marriage? (mother)

33. Have you worked outside the home since you have had children?
    a) If so, full time/ part time/ occasionally/ no.
    b) Do you work now? Full time/ part time/ occasionally/ no. If not, do you plan to?

34. Thinking of your family as a whole, do you feel that any of your children have a closer relationship than usual with you, your husband or any other adult?

35. Did this young fluent reader watch television before starting school? If so, how often? Selectively? Non-selectively?

36. Are you aware of anything he has learned from television?

The parent was also asked questions about
    a) early functioning of reader: walking, talking, early health.
    b) laterality of child and parents.
    c) emotional and social behaviour: adjustment to school, home, fears, aggression, separation from mother, duration.
    d) their view of the educational role of parents? role of the school? how much overlap? should parent become involved in school learning and activities? should they continue any teaching at home after the child has started school?

1. Based on Clark, M. Young Fluent Readers, London, 1976, p. 107